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THE

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

ON THE USE OF ELECTRICITY IN MEDICINE.

BY JAMES W. HOLLAND, M. D.,

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Of all the forces evoked from matter, electricity has been regarded with the greatest wonder. As a curative agent it has been long known to the profession, but even to this time its therapeutic value has not been determined with anything like accuracy. That it is capable of powerfully affecting the living system no one can doubt. It is as little to be doubted that its indiscriminate employment may be injurious; but applied judiciously, and by the processes afforded by modern art, there is reason to believe that its effects are often admirable. None of its advocates claim for it an advanced position as an exclusive medical agent, but only that it should be discreetly used in combination with other remedies. As Althaus pithily puts it, "It is not electricity that cures diseases, but the physician who may cure disease by means of electricity."

The subject of electricity in its relation to the animal economy is too extensive for a single paper. I propose in this simply to present the leading facts brought out by late researches upon the rational employment of electricity in practice.

A question of some concern to the practitioner, and one frequently made, is, what form of apparatus can be applied to the greatest variety of cases, and with proportionally the best results? To answer this will require a succinct review of the three agencies commonly included in the term electricity. They are static or frictional, galvanic and faradaic electricity. The first is generated by the friction of a revolving glass plate. The patient is placed upon an insulated stool and charged from the prime conductor; then the electricity is drawn from him by either a pointed or round metallic rod. Shocks from the charged Leyden-jars also belong to this division. Dr. Golding Bird reported signal success from it in cases of chorea and amenorrhœa; but owing to the feeble quantity, the deficiency in amount of its production, and the disorganizing energy of the jar, it is about dismissed from general practice. It is the most potent restorative known to our art in cases of suspended animation from partial drowning, but its other effects can be more readily obtained by faradism.

The second form—galvanic electricity, sometimes called "the direct current," or "the constant current"—is produced by chemical action in the battery. The essentials of its production are two metallic plates, externally in contact, immersed in a liquid that has the power of corroding one of them. Modifications of Bunsen's, Grove's, or Daniell's batteries are especially favored by electro-therapeutists, though they are still in need of one that is convenient and portable. All who are entitled to a voice declare that the zinc-carbon and zinc-platinum electro-motors are the most powerful; Althaus and some others prefer the zinc-copper members of Daniell's battery, with sulphate of copper solution as an intermediate conductor, because of the duration of their constant action. Stowed in a closet or corner of the office, they will run for months without cleaning, requiring only occasional supplies of water to make up the deficiency from evaporation, and by multiplying the elements any desired intensity can be obtained. During the war some exceedingly manageable batteries were manufactured for the telegraph department. The cells were put up in section-boxes, each containing six, some of Bunsen's and some of Daniell's order. They can be had very cheap at any depot of telegraphic materials; and by combining a series of boxes they may serve every purpose as a medical battery.

It is worth remarking that the direction of the current in the terminal arch is from the most resisting member toward the one that is corroded—*i. e.*, from the copper to the zinc; and further, that the projecting point of the copper is called the positive, that of the zinc the negative pole.

Galvanism has a strong calorific and chemical action, and is used when decomposition of fluids or cauterization of tissues is desired. It has been employed lately by Dr. Hammond for modifying general nervous irritability. When properly applied it stimulates powerfully the retina, and may be used with advantage for amaurosis. It is the only current that will affect through their bony coverings the brain and spinal marrow. The heating and inflaming action of this current would lead us to apprehend danger from its prolonged employment for muscular excitation; still we are assured by Remak that there are cases of paralysis cured by galvanism that have resisted stoutly all the capabilities of the induction currents. Notwithstanding the strong foothold it has gained in the larger cities and the metropolitan hospitals, the battery will never become the common property of the profession. It is too cumbersome ever to be portable; time and patience are consumed in putting it together, and cleaning it; and finally, the number of its medical applications is too small to justify its being kept by the general practitioner.

The third form, faradaic or induced electricity, is obtained by either the cell and coil or the rotary machine. In the first, by alternately making and breaking a current of electricity generated in a galvanic cell, a bar of soft iron is magnetized and demagnetized, and there is induced in a parallel wire a vibratory or to-and-fro current, which is more energetic than the inducing current. In thousands of offices and households these instruments are to be found in the hands of persons who, from ignorance, are incompetent to work them. A mechanician of this city has received for repair a number of them, only a few weeks from the shop, in which the zinc members of the cell had been utterly dissolved by the surrounding acidulous fluid. Commercial zinc is contaminated with lead and other metals, the effect being to establish minute voltaic circuits between them and the adjacent particles of zinc, thus corroding the plate and wasting the electric force. To prevent this the zinc is cleansed well with sulphuric acid, and mercury rubbed upon it to form an amalgam. Painting the outer surface of the zinc cylinder with a varnish of amber will still further increase its power of resistance. By this protection all action upon the zinc is suspended, while the circuit is opened.

Faradaic electricity is evolved from the magneto-electric instrument by causing two helices of insulated copper wire, wound about soft iron cores, to revolve by mechanical force before the faces of a strong magnet; whenever they approach or recede from the magnets a current of electricity is induced in the helices.

The faradaic currents are necessarily interrupted, though the intervals may be so short as to be inappreciable. That of the coil or galvano-electric instrument is called "to and fro" because the direction so changes with the opening and closing of the primary circuit.

The physiological effects of the opening current are the most marked, and therefore, when employed for therapeutical purposes, we take into account merely the strongest—*i. e.*, the current of opening.

By the attachment of a commutator to the rotary machine all the currents are thrown into a definite and constant direction; this arrangement allowing a distinct positive and negative pole.

The course of the current is an important consideration, and may be learned by holding the conductors or electrodes in the hands, when the most pain will be experienced where the current leaves the body—that is, in the hand grasping the negative electrode.

The profession has come to recognize the advantage of galvanism in the above-mentioned conditions mainly through the luminous researches and persistent praise of Remak; but, notwithstanding that it deserves all that is claimed for it, it is the expressed opinion of Duchenne, one of the highest authorities, "that *induced* electricity is essentially medical electricity." To the question which of the faradaic instruments is best adapted to the ordinary run of medical cases, Becquerel emphatically replies, "I am thoroughly convinced that all electro-magnetic (cell and coil) instruments, without exception, must cease to be used in medical practice, and be supplanted by magneto-electric (rotary) machines." A candid examination into their relative abilities has elicited from Meyer the following: "We use for physiological and pathological investigations exclusively the volta-induction (cell and coil) apparatus, while for therapeutical purposes the magneto-induction apparatus takes its place." While I do not advocate so warmly as Becquerel the superior merits of the rotary machine, nor predict for it such absolute reign in the office, yet owing to the facility of keeping it, and the freedom from unpleasant handling of acids, I incline to the opinion that it will generally be more satisfactory than the other. Its great advantage is that it can be used at any time without chemical preparation, though an assistant will be needed to turn the wheel. Quite a large number of ills—chronic rheumatism, for example—can be treated by patients themselves. Here this instrument is exceedingly convenient. It has been urged as an objection to it that the power of the magnet is lessened by lapse of time. This can be prevented by placing in the idle intervals a "keeper" over the magnetic poles. Entire control for modulating the power of this instrument can be gained by intercalating in the continuity of one of the conducting wires a tube filled with water, and closed at each end with perforated corks, through which the divided ends of the conductor are pushed. By increasing or diminishing the distance of separation, and thereby adding to or lessening the amount of resistance from the interposed barrier of water, the energy of the current can be effectually graduated.

The method of Duchenne, which still bears his name, was founded upon the succeeding observations:

1. When two dry electrodes (metallic cylinders connected to the instrument by polar wires and filled with sponge) are applied near one another upon the thick dry epidermis, the current does not penetrate the skin, but passes between them, crackling and sparkling.

2. If one of the electrode sponges be moistened, a superficial sensation is felt under the dry one.

3. If the skin under both be slightly moistened, a stronger though still superficial sensation is perceived.

4. If both sponges and skin are well wetted, there will be perceived neither sparks nor crackling nor burning, but instead muscular contractions will be excited, accompanied by various forms of pain, according to the deeper part acted upon.

The last and culminating observation is of untold value in the management of cases requiring local faradization of muscles or nerves.

For electrization of the skin, required in affections of its sensibility, three modes are in use by Duchenne.

1. The electrical hand, used only for the face, and in very irritable persons. A moistened electrode is placed on the sacro-lumbar region, and the operator, taking the other in his hand, passes his fingers over the affected part.

2. Solid metallic electrodes. They are carried backward and forward over the part needing stimulation.

3. The metallic brush. This instrument consists of a bundle of fine wires, with which we either scourge the skin, or else allow it to act upon the same spot as long as it can be borne.

The latter mode, frequently employed for obstinate neuralgia, is a most powerful form of local stimulus, and from the severe pain and counter-irritation it is called the "electric moxa." For paretic troubles, it is customary to place the moist electrodes very near together, upon the superjacent skin, when we desire to excite a motor-nerve or muscle, though a muscle or set of muscles can be convulsed by faradizing a distant trunkal portion of the nerve distributed to them.

Remak discovered that some muscles contracted more promptly and powerfully when acted upon at the motor-point—that is, where the motor-nerve enters the muscle. From his investigations the valuable rule has been deduced that to obtain the strongest movements possible from the weakest possible current one exciter must be placed on the motor-point; the other, in its close neighborhood, over the belly of the muscle.

The difficulty of electrically reaching the greater number of inner organs is one not easily surmounted; the rectum, bladder, and uterus are the most accessible. But it would extend this paper too much to go into details.

The attention of the profession was first directed by Marshall Hall to the value of observations upon the varying relations of paralyzed parts to the electric current as criteria for diagnosis and prognosis. He conducted the current to the paralyzed member through two basins of water, and was brought to the conclusion that in spinal paralysis the electro-muscular contractility diminishes, while in cerebral paralysis it actually increases. By "spinal paralysis" he meant not one caused by a disease of the spinal cord, but one in which the muscles are uninfluenced by this organ, haply through some breach of continuity in the motor-nerve. He comprised in the term "cerebral paralysis" all that would affect the motor power of the will, depriving the muscles of brain control, such as diseases of the brain or of the dorsal region of the cord. The conclusions of Todd have a better claim to scientific accuracy, and disprove in part the validity of Hall's assertion. In cases of cerebral paralysis the electro-muscular contractility was found by him not at all elevated, but even sunk below the normal point. His well-conducted observations resulted in the following statements, which are quoted through Meyer:

1. In those cases in which the paralyzed muscles, when subjected to the electric excitement, exhibit stronger convulsions than the homonymous muscles of the unparalyzed members, a certain degree of contraction was apparent, corresponding in degree to the violence of convulsion. There was thus in these cases, besides the paralysis, an irritable condition of the cerebral matter, such as is found in apoplexies, where the brain is otherwise healthy, in tubercular formations, but especially in traumatic injuries, accompanied with meningitis and meningeal apoplexy.

2. In those cases in which the electric excitement occasioned no convulsions, or but slight ones, the muscles were ordinarily weak and in a condition of atrophy; the temperature and assimilative power of the affected parts were depressed; and the paralysis was attended with a structural modification of the cerebral substance, which arose either gradually, with an atheromatous deterioration of the arterial

membranes, or suddenly, in cases where obstruction had occurred in the arteries.

3. In cases in which an apoplectic paralysis had attacked men who were not far advanced in years, and had always possessed good health, the paralysis being complete, no difference was perceived as regards irritability between the paralyzed and healthy muscles.

In no affection are the curative powers of electricity more strikingly exhibited than in paralysis; but here a great difference is observed, according to the cause of the disease. If it belong to the class called by Marshall Hall "cerebral"—*i. e.*, dependent on a central lesion—but little benefit will result from its use; and where the brain tissue has been disorganized it would be vain to expect the muscles ever to obey its behests. Hence in the "spinal" or peripheral paralysis this agent has most power; and next in order come those in which the central lesion is susceptible of repair.

Meyer sums up as follows some of the inlying qualities on account of which it is to be preferred to all other means:

1. Electricity is a stimulus to motor, sensory, and special-sense nerves. 2. It increases the supply of blood to the irritated part of the body. 3. It augments the temperature and increases the volume of the irritated part. 4. It enhances the contractile energy of the vascular walls. 5. It counteracts the secondary changes occurring in inactive nerves and muscles. 6. It is capable of restoring to nerves and muscles their lost functional power. 7. Through it we are enabled to act directly on the brain and spinal marrow.

The several methods of treatment with the induction apparatus are to transmit the current back and forth between the nerve plexus or the spinal end of a nerve and its ramifications in the affected muscles, and especially Duchenne's method of faradizing separately each paralyzed muscle.

Some care should be exercised in regulating the energy of the current and the duration of the session. It is better to begin with a gentle current, conducted for a short time, and increase in strength and duration according to the exigencies of the case. As soon as the electro-muscular contractility is more responsive the current is to be diminished.

There are cases seemingly arising by a reaction from the sexual organs upon the nerve centers, and closely simulating cerebral and spinal paralysis, the causes of which are very insignificant when compared with the frequent gravity of the effects. The palsy is coincident with either a hyperæsthesia or anæsthesia of the parts involved, the sensibility and motor irritability changing from a low to a high degree without any apparent cause. Duchenne has relieved many such cases of this hysterical paralysis by the aid of electricity, and with surprising ease.

I have lately seen a case that might be classed with these paralyses, of general nervous irritability. In December, 1869, Mrs. R., of middle age, after unusual exertion and mental emotion, was prostrated with a partial hemiplegia of the left side, and a most atrocious hyperæsthesia of the loins and lower limbs. When the electrical treatment was begun, on March 10, 1870, there was a noticeable muscular weakness, a sense of tightness and numbness, with occasional neuralgia in the left arm. The left lower limb was habitually cold and numb from the knee down, and in walking was dragged after the other. There was some impairment of electro-muscular contractility and sensibility on the ailing side. The rotation instrument was employed for fifteen or twenty minutes every day, and after six sittings a well-marked amelioration of all the symptoms was obtained. In twenty sittings she has recovered the use and normal temperature of both the arm and leg; the power of balancing with eyes closed, entirely lost before, is now restored; the numbness and neuralgia completely dispelled.

Electricity is reputed to afford us means for prognosis in those paralytic affections of infants dependent upon inflammation or congestion of the spinal cord. When the afflicted muscles have suffered but little in their electro-contractility we may conclude a favorable prognosis; but when a member has lost this power to a great degree, owing to the radical vices in nutrition, a tedious treatment is frequently unavailing. In these last cases all that can be hoped from electric irritation is an improvement in the muscles still reactive.

Following some cases of diphtheria, there is a form of paralysis in which the electric condition of the muscles affected is normal; and here the prognosis is favorable. The phrenic nerve may become involved, and when the vital spark is flickering the faradaic current, rightly employed, will often rekindle it. A late and probably the best method, applicable also to asphyxia from chloroform, coal gas, carbonic acid, etc., is to pull the skin and outer border of the sterno-mastoid muscle toward the middle line, and press the narrow, moist electrodes firmly down upon the lower end and anterior border of the scalenus anticus. The other side is similarly treated with the other electrode, and the instrument made to work energetically. In this way not only the two phrenic nerves, but those branches arising from the brachial and cervical plexus, which supply various inspiratory muscles, are stimulated, and natural movements of the diaphragm, with strong heavings of the chest, are produced.

In the paralysis of the extensor muscles due to lead poisoning, the ailing muscles suffer in both electro-muscular sensibility and contractility. The first is only weakened; the last considerably, and often utterly, lost. If atrophy ensues, it will be in those muscles alone which have been affected in their electro-contractility, and these are the last to yield to the beneficial agency of electricity.

It is asserted that the diseases attacking sensation, such as neuralgia and anæsthesia, are hardly less amendable by electricity than the classes spoken of above. In neuralgia it has a reflex action, as an epispastic more sudden and more fleeting than any of those in common use. Sometimes the desired result can be obtained by transmitting for ten minutes with moist electrodes a moderately strong induced current through the painful nerve. This mode has the power of reducing directly the nervous sensibility, though as a certain remedy it ranks lower than the application of the electric brush. To operate with this instrument, Duchenne first dries the adjacent skin with an absorbent powder, so as to prevent a painful penetration of the current, and then applies the brushes upon it in close proximity. Meyer recommends in obstinate cases the electric moxa, if the patient endure its severe but abbreviated pain. He reports the happiest results in all cases of peripheric neuralgia which do not originate from deeper organic affections or mechanical causes, as a nervous tumor or a carious tooth.

M. K., a laboring man, aged forty years, under my professional charge, who several weeks ago was injured by a fall upon the left shoulder, whereby a lesion of the axillary band of nerves was produced, suffers from a paralysis of the forearm, with anæsthesia of its posterior surface. Faradization of the palsied muscles has partially restored their warmth and plumpness, though continued treatment for the anæsthesia has been postponed until the trunkal breach has been healed, when local electric stimulation will probably give a full restitution of motion and sensation. If it were an anæsthesia of local origin, resulting from any of the ordinary causes, the electric current would promise immediate relief.

In a large number of cases of nervous deafness, accompanied by no apparent organic change, happening in hysteria, or as sequels to measles and scarlatina, Duchenne was gratified to find an improvement, and in some instances a cure from the intermittent current. He insulates a wire as far as its point, introduces it into the auditory canal half filled with tepid water, and holding the other exciter to the mastoid process, allows a weak current to act for a few minutes. He has been so fortunate as to relieve a case of congenital deaf-mutism.

In laryngeal paralysis, caused by cold or strong emotion, or as a hysterical phase in young girls, the induction current applied percutaneously, either by brushes or sponges, is generally followed by sudden and signal success—the voice returning as by a miracle.

It is an opinion, rapidly spreading, that rheumatism results from a retention of cutaneous secretions, brought about by a sudden change in the temperature of the atmosphere. The interrupted current will generally loose the cutaneous dams, and by stimulating the contractile walls of blood-vessels and lymphatics, the blood and lymph cells will freely circulate and relieve the local engorgement. To treat most suitably the articular inflammations, a very vigorous current is sent for ten minutes transversely through the joint, frequently changing its direction. Sometimes this removes at once and permanently the most violent and persistent arthritic pangs. And where there is a perceptible alleviation of pain, the process of exudation soon ceases, and the inflammatory products are absorbed.

Mrs. M. C., aged sixty, had suffered about ten days from a rheumatic inflammation, with some exudation in the right wrist, rendering the joint immovable; there was one point upon the dorsal surface especially prominent, hard, and marked by excessive pain. The phalanges were semiflexed and stiff, probably from effusion around the tendons. Stimulating liniments and lotions, conjoined with regulated diet, had been used without making the faintest impression upon the disease. In one sitting the pain and tenderness were greatly relieved, and by local faradization of the muscles in the forearm almost entire freedom of movement in the phalanges, with partial but very evident benefit to the carpal mobility, was produced. The sittings were held on alternate days, and after the third, as none of the symptoms remained but a slight swelling, the case was dismissed. She shook hands unconstrainedly with me, a few days since, and reported the joint as well.

Several German electro-therapeutists have published extended lists of cases of chronic rheumatic stiffening in the knee, elbow, shoulder, and other joints, perfectly cured by a strong faradaic current administered by several seances. It has been noticed that when the first start in resorption has been given by the current, apparently by an after effect the process continues unaided until the whole exudation has disappeared.

Electric excitation by wet sponges upon the neighboring skin has proved very beneficial in derangements or suppression of the secretion of the mammæ. Becquerel publishes the following convincing instance: A mother, aged twenty-seven years, nursing six months, with an abundance of milk, through violent mental emotion had the secretion reduced in the left breast and suspended in the right. Hardly a trace of milk had been found for eight days. After allowing a mild interrupted current to act upon the left breast, the flow of milk began anew, and after the third application was copious enough for the child's wants.

The thermal and chemical effects of the galvanic current have given it some prominence as a remedy in surgical diseases. The caustic platina-loop has been employed with highly satisfactory results in the treatment of hemorrhages, fistulæ, polypi, and deep ulcers. Its disadvantages are asserted to be the costliness of the apparatus, liability to fusion or breakage of the wire while operating, and the technical difficulties, requiring for proper management a previous course of study and experiment. When two polar needles connected with a strong battery are introduced into a blood-vessel, the fluid is decomposed—acids, albumen, and fibrin going to the positive pole, while the alkalies, iron, and bases generally collect at the negative. As a consequence of this electrolysis, the albumen will in a short while form flakes and coagula about the positive needle, and around these a regular process of consolidation ensue. Upon these observed effects the method of galvano-puncture for varix and aneurism is founded, though in practice the best results are accomplished by inserting the positive pole alone into the tumor, and closing the current by the negative upon the neighboring skin. The cultivation of this field of galvanism is in the hands of eminent observers, who, from its fruitfulness, are promised an abundant harvest. Nor will an empty garner be the reward of others who are experimenting with electricity in gynecology and obstetrics.

LOUISVILLE, KY.

ON THE TREATMENT OF PNEUMONIA.

BY J. HALE, M. D.

The treatment of pneumonia, after all that has been written on the subject, is a question in regard to which entirely discordant views still prevail in the profession. At one time large bleedings seem to have been demanded, and were well borne according to the authors of that day. Lænnec, and Louis were early impressed with the conviction that these bleedings were not eminently successful, and that in many cases they were absolutely injurious. Since the times of these eminent men many revolutions in professional opinion have taken place, and various modes of treatment have been proposed, embracing the extremes of depletion and stimulation. These discrepancies may be explained, I think, by the fact that pneumonia varies in type and severity not only in different cases, but in different countries, seasons, and localities. And if this be so, extremes in practice, be they what they may, adopted as a general rule, and in all cases indiscriminately, can never afford satisfactory results.

The statistics of the different methods of treating pneumonia are so contradictory as to deprive them of the slightest claim to be considered as authority. No definite conclusions can be arrived at from cases massed together; each case must be studied by itself, in its character, stage when first seen, and circumstances of the patient. So great are the differences in constitutions that no two patients will exhibit the same characteristics throughout the course of the disease, nor will they admit of precisely the same treatment. It is the appreciation of these differences that enables the physician to meet the emergencies in each case. The only proper course is to treat each case according to its individuality. Pneumonia requires not a single remedy, but many; it is the judicious combination and application of remedies that secures success in its treatment, and not a single remedy or stereotyped course of treatment.

In the first or congestive stage of pneumonia in plethoric subjects, in healthy, non-malarial districts, blood-letting is a valuable therapeutic agent; but in the second stage, and in malarial regions, as a rule it is hazardous. I have not practiced blood-letting nor used tartar emetic in the treatment of pneumonia for ten years, because we have other therapeutical agents that answer better, and are attended by none of the dangers incident to the use of these agents. Veratrum viride and digitalis are the remedies upon which I rely to control the undue action of the heart and arteries. In the early stage of the disease, in robust subjects, after moving the bowels with a mercurial purgative, I give Norwood's tincture of veratrum in four-drop doses, with ten grains of nitrate of potash, and from a fourth to a third of a grain of morphine, every four hours, increasing the tincture two drops every dose until the pulse is reduced to sixty-five a minute, or nausea and vomiting occurs. I then reduce it to four drops, and continue it until the active stage of the disease has passed by; then I stop the veratrum, but continue the nitrate of potash, with from one to two grains of opium and half a grain of ipecac; and where there is a tendency to asthenia I add two grains of quinia to each dose. Under this treatment, frank, uncomplicated cases of pneumonia have seldom failed to terminate by resolution in from six to twelve days. But in some cases it has failed, and the fever has continued, with derangement of all the secretions, and complete hepatization of a portion of the lung tissue. In such cases I have derived great benefit from the use of mercury, digitalis, and opium, with free vesication over the diseased lung. I usually give one grain of calomel, with two grains of digitalis and one of opium, every four hours, and continue until resolution is established, or the constitutional effects of the mercury are manifested. I then discontinue the mercury and add two grains of quinia to each dose, and continue until the febrile excitement is controlled.

In asthenic pneumonia, or in the pneumonia of old or delicate subjects, after opening the bowels with castor-oil or Epsom salts, I usually rely upon digitalis, muriate of ammonia, and opium. I give from one to two grains of digitalis, in substance, with ten grains of muriate of ammonia and one grain of opium, every four hours, and continue until the febrile excitement is controlled; I then stop the digitalis and add two grains of quinia to each dose, and continue until convalescence is established.

In certain districts pneumonia is often complicated with malarial fever, and is characterized by marked remissions and exacerbations. In such cases I found a combination of quinia, digitalis, and opium to answer admirably. I usually give five grains of quinia, with one or two grains of digitalis and one of opium, every four hours. In most cases this course meets every indication, and from my observation they terminate more favorably, and in a shorter time, than uncomplicated cases. I seldom use purgatives in the treatment of pneumonia after the bowels have been once thoroughly evacuated; and if necessary to open them again, I prefer saline laxatives.

Stimulants are seldom necessary, and I think are often injurious if given in the early stage of pneumonia. In the advanced stage they are valuable, and in many cases indispensable. I prefer carbonate of ammonia and brandy to all others. Nourishment is an essential element in the treatment of all protracted cases, and milk is to be preferred to all other articles of diet.

The local treatment of pneumonia is of considerable importance, especially in pleuro-pneumonia, and all other cases attended by much pain. I generally rely upon cupping and sinapisms; if they fail to afford relief, I inject a solution of morphia under the skin, over the seat of pain — from a fourth to half a grain is sufficient. The inhalation of chloroform is also efficacious in such cases, and not only relieves the pain, but mitigates the fever, and I am inclined to think facilitates resolution of the inflammation. Warm applications are valuable in all cases, and should always be used when more active measures are not deemed necessary. In the advanced stage of the disease, when resolution is tardy, and effusion of serum takes place in the chest, I resort to free vesication. I have applied the tincture of iodine with very good effects in mild cases, and especially in the pneumonias of children — painting the entire walls of the chest two or three times a day. I have also used a liniment, in the cases of children and delicate females, composed of olive oil, turpentine, and ammonia.

Expectorants, as a rule, are not advisable. I never use them, except in the advanced stage of the disease, when the bronchial secretion is deficient and the cough troublesome. The position of the patient should be frequently changed in protracted cases, especially in children. Ventilation of the sick-chamber should be thorough, and the temperature uniform at about sixty-five degrees Fahrenheit.

Acute pneumonia sometimes, but rarely, terminates in the chronic form of the disease. I have had several cases under my care, and have had the gratification of seeing them all recover. In the cases occurring in persons of healthy constitution I gave iodide of mercury in half-grain doses, with two grains of quinia and half a grain of opium, three times a day, and continued it until the constitutional effects of the mercury were manifest; I then discontinued the mercury, quinia, etc., and gave iodide of potassium in fifteen-grain doses, with a drachm of fluid extract of sarsaparilla and compound tincture of bark, three times a day. In the cases occurring in persons of strumous diathesis I gave the iodide of potash, sarsaparilla, and bark, with cod-liver oil. I used free counter-irritation in all the cases, by means of flying blisters in the commencement, succeeded by tincture of iodine, freely applied over the diseased lung, and continued until resolution was completed. Nourishing diet, consisting of milk, eggs, and beefsteak, was used in all.

OWENSBORO, KY.

OBSERVATIONS ON THE MINERAL SPRINGS OF KENTUCKY.

BY LUNSFORD P. YANDELL, M. D.

In 1832, while editing the Transylvania Journal of Medicine, I made a chemical analysis of some of the principal mineral springs of Kentucky, with reference especially to their therapeutic action. The results of my researches were published in the fifth volume of that journal. Subsequently I gave some account of the chemical and medicinal qualities of the Paroquet Springs, in the Western Journal of Medicine. Prof. Peter and Prof. J. Lawrence Smith have also published notices of some of these springs. Since the date of these publications a geological survey of a large portion of the state has been made, and many of its mineral springs have been carefully analyzed by Prof. Peter and Prof. Owen, connected with the survey. From all these sources it is believed a sufficient amount of material may be gathered to furnish a satisfactory account of the chemical constitution and remedial powers of the Kentucky springs which have attracted most attention. I propose in this article, and in some others that may follow, to submit such a description so far as I am able from my reading and observation on the subject.

An apology may be due to some of the readers of the Practitioner for writing a paper on the medicinal powers of mineral waters. There are physicians, I know, who altogether discredit any such virtue in those waters. The late eminent Prof. Dudley was among that number. He attributed all the benefit derived by invalids from mineral springs to the exercise and change of air and diet and general modes of living attendant upon a visit to them; and in confirmation of this view he was in the habit of citing an instance of which he had read an account in some English publication. A spring in some elevated region of England, by some means it seems, acquired a name for curing diseases, and finally became noted as a watering-place. Invalids were attracted to it in great numbers, and were relieved of their various maladies while drinking the water. At length some of it was sent to London to be analyzed by Prof. Brande, then one of the leading chemists of Great Britain. The answer returned by the learned chemist was that the water was as nearly free from all mineral ingredients as water is ever found to be issuing from the earth — so nearly so, indeed, that druggists might use it in compounding their medicines for *aqua pura* itself.

This instance is certainly instructive, and goes as far as a single case could to establish Dr. Dudley's position. It illustrates the efficacy of moral and physical influences in the correction of both mental and bodily disorders. It confirms the experience, of which the mass is accumulating every day, that medicine is not always necessary to the recovery of health. But if any one is tempted by instances like this to go further, and, claiming for the accessories all the healing virtues, deny to the springs themselves any medicinal properties, a satisfactory answer is furnished by the constitution of mineral springs. The substances contained in them are well known as among our tried remedial agents. They can hardly be less efficacious because taken in the form in which they were prepared by nature. It may be, on the contrary, that the combination and degree of dilution in which they occur in these waters is the best that can be effected; and it is quite certain that many of them operate more efficaciously for being largely diluted, as they are in these springs.

As to the salutary effects of mineral waters upon the valetudinary, whatever may be the skepticism of a few learned physicians, there is no doubt in the popular mind. The belief indeed rests upon an amount of evidence that ought to be accepted as conclusive; and whether the good they accomplish is due mainly to the medical qualities of the waters themselves or to the extraneous influences that attend their use is not a question in which our patients feel any particular concern so long as they are relieved by them. To the invalids of cities especially—made so by the constant strain upon the nervous system, and the want of exercise and pure air—they are a resource of incalculable value. But they are not less adapted to cases occurring in the country, and hence it follows that invalids and physicians everywhere are interested in knowing the character of the various medicinal springs of our country, and the complaints in which they promise to be useful.

The present paper will be devoted to the CRAB ORCHARD SPRINGS, which have long enjoyed a reputation for curative powers, and have within a few years become more widely known from the salts afforded by those waters. Railroads have made them easily accessible from the South, the West, and the North, and they are every year visited by the seekers of health and pleasure in increasing numbers. The country around them is elevated and dry, and presents a landscape of great beauty. They occur in the formation known to Kentucky geologists as the black slate or bituminous shale, which immediately overlies the limestone of the Falls of the Ohio, and forms the base of the hills which stretch away north and south below the falls. This shale crops out everywhere at the foot of these hills, which in Kentucky extend east from the Ohio, and then north, and is the surface rock at Crab Orchard. Abounding in the sulphuret of iron, it gives origin wherever it prevails to chalybeate springs. Together with iron it often contains magnesia, and other bases which by the reäction of sulphur are converted into soluble sulphates. Associated with these salts are carbonates, resulting from the carbonic acid contained in nearly all water, and muriates, which were probably left behind by the ocean when it receded from these ancient deposits.

The Crab Orchard Springs vary quite as much in strength as they do in chemical constitution. Some hold suspended less than the sixth of a grain of solid matter in a thousand grains of water. One contains more than seven grains in the same quantity of water. Only one—*i. e.*, "Howard's Sulphur Well"—is impregnated with sulphureted hydrogen, which forms so common an element in the mineral waters of Kentucky. Carbonic acid in a free state exists in all the springs. Iron is found in all but one. Sulphate of magnesia has been detected in all, but varies in amount in the several springs—from a trace to nearly three grains in the thousand. These two constituents, iron and magnesia, may be taken as the representative ingredients of these waters, being those to which they chiefly owe their therapeutic qualities. In only one is there enough of the latter to render the spring decidedly laxative. All the others belong to the chalybeate class of springs.

In the "Grove Spring" the solid matters amount to a little more than the third of a grain in a thousand grains of the water, of which iron and magnesia form a part. Although minute, the quantity is sufficient to render the water efficacious when it is drunk freely. The carbonate and sulphate of magnesia, associated with the iron and manganese, tend to keep the bowels in a soluble condition.

The "Brown Spring" and the "Field Spring" differ but little in character from the first, the amount of solid matter being only a few grains greater. In all, the presence of free carbonic acid has the effect of making the water more palatable, and less offensive to the stomach.

"Howard's Sulphur Well" differs from all the springs, in containing sulphureted hydrogen. In all other respects it is the same in its ingredients.

From this account of the characteristics of these springs, the medical reader will be at no loss to determine the character of diseases to which they are applicable. They are useful in that large class of cases in which the blood has become impoverished. Convalescents from whatever complaint, the subjects of intermittent fever of long standing, persons who have become feeble from loss of blood or wasting discharges — in a word, the anæmic, by whatever cause rendered so — are likely to be greatly benefited by these springs. They increase the appetite, improve the digestion, and invigorate the system. If this is not the effect experienced, after a short trial, it may be inferred that they are not exerting a beneficial influence. The invalid should feel himself growing stronger, more active, more buoyant in spirits; and if, on the contrary, he is feverish, dull, has headache and a sense of discomfort after using the water, he may be assured that it is not adapted to his case. In order to produce any decided impression upon the system it must be taken liberally. It should be drunk not only in the morning, but throughout the day; otherwise, the proportion of iron being so small, hardly enough will be taken into the system to effect any beneficial change.

"Sowder's Spring" affords the Crab Orchard salts, so generally in use in Kentucky as a substitute for Epsom salts. The solid matters in this spring make 7.153 parts in 1,000 of the water, and of this more than half consists of sulphate of magnesia, sulphate of soda, and muriate of soda. These are very common substances; and the last is not generally regarded as a medicine, but in this water they compose a certain and most eligible laxative. And besides these aperient salts this spring contains carbonate of magnesia, valuable as an antacid, and becoming purgative by combining with the acids of the alimentary canal, and also a very small amount of iron and bromine, by which tonic and alterative properties are communicated to it. The combination is one of singular excellence. Its effect upon the bowels is uniform and reliable, and for all those troubles in which constipation forms a prominent feature it is entitled to rank with our best laxatives. The trace of iron held in solution by the free carbonic acid imparts to it feebly tonic qualities, and the bromine in its combination with the potash and soda bases must exert something of the therapeutic influence of bromide of potassium.

The time for drinking this water is the morning, when the stomach is empty. It may be drunk in very large quantities on a full stomach, without moving the bowels, but a few half-pints before breakfast seldom fail to act upon most persons as an efficient aperient. Most invalids will find it beneficial to drink the two varieties of water in conjunction—one in the morning to evacuate the bowels, the other during the day for its tonic effects. The magnesian water may be used day after day, by persons in the most delicate health, without any fear of exhaustion, its effect being simply to unload the bowels. However watery the evacuations, they never tend to debility, and it is a common observation that iron is more prompt in its action when the bowels are kept open. In fact, it may be said that this is the one condition essential to bodily health and comfort.

As a group, there is no reason to doubt the Crab Orchard Springs are worthy of all the reputation they have gained for medicinal virtues. The aperient qualities of Sowder's Spring are perfectly manifest; and of its utility in dyspepsia, in functional disorders of the liver, in habitual constipation, and all those complaints which require a gently laxative and alterative treatment, there can be no question. The tonic power of the chalybeate springs, in which the quantity of iron is so insignificant, might admit of a doubt if it had not been established by so large an experience. But when we consider that the average amount of iron in the human system is only about seventy grains, and that the quantity excreted daily does not exceed a grain, it is evident that the waste may be fully supplied by these feeble chalybeate waters. The iron contained in them is dissolved by free carbonic acid, and this is known to be one of the combinations most favorable to the introduction of that metal into the system. Of the efficacy of these waters in restoring the blood to its normal condition, in chlorotic and anæmic subjects, abundant proof is presented at the springs every day.

The Sulphur Well, which in respect to its saline constituents is the feeblest of the group, claims attention on account of the sulphureted hydrogen with which it is impregnated. Sulphur springs are deemed especially efficacious in cutaneous affections, and are thought to produce an alterative effect in glandular obstructions.

Invalids, after a pleasant ride over a smooth road, may expect to find at the Crab Orchard Springs all the arrangements necessary to their comfort; and with the fine air, the pleasing scenery, and all the facilities afforded there for abundant exercise, coöperating with the mineral waters, can hardly fail to come away from them invigorated and improved.

LOUISVILLE, KY.

ON THE IMMEDIATE USE OF THE IMMOVABLE APPARATUS IN FRACTURES OF THE LOWER EXTREMITY.

BY DAVID W. YANDELL, M.D.

The highest American authority on fractures gives it as his opinion that the immovable apparatus should not be used during the first ten days after the accident; and while he admits the great value of the starch bandage in selected cases, he states it as a fact that the number of accidents resulting from this practice is out of all proportion with any other yet introduced. Some of the cases in this paper are reported in order to show that the delay insisted on by Prof. Hamilton is unnecessary, at least in many instances. And a suggestion is offered whereby the dangers which he depicts may in the main be avoided.

Many surgeons believe that traction of the limb by some means is all but indispensable in this class of injuries. The cases which are here detailed will, it is believed, tend to establish that if extension and counter-extension be necessary, they are accomplished just as certainly and effectively by the pressure and friction of the starch bandage as by the perineal band in the long splint, or by a foot-weight. It has been well said by Mr. Erichsen that these several methods act at last very much in the same way—to wit, by fatiguing and relaxing the muscles of the limb. And every surgeon must have observed, whatever the method used, that, after the lapse of three or four days, shortening of the member is almost invariably corrected. "Nor is violent traction or forcible effort to bring down the limb to its proper length ever needed; for, by waiting quietly, the limb falls into its normal length"* whenever the contractility of the muscles is finally overcome—whenever their relaxation is complete—which, as has just been remarked, is usually at the expiration of three or four days. Yet it can not be denied that the age of the patient, the nature and situation of the injury, and the amount of displacement of the fragments, exercises, each in its way, a controlling influence over the result in all fractures. In simple fracture of the shaft of the femur, for instance, the nearer the condyles, and the more transverse the fracture, and the less the displacement, the less is the liability to shortening. In children and very young persons there seems to be no special tendency to this deformity; but, on the contrary, a special tendency to recover under almost any mode of treatment, without appreciable shortening. But in muscular adults, where the fracture is oblique, and high up, and accompanied by great displacement of the fragments, it seems absolutely impossible in some cases to avoid a certain amount of shortening, no matter what the treatment adopted, or how dexterously used, or how carefully watched. Indeed that excellent surgeon, Prof. Blackman, says † that "Prof. Hamilton is entitled to immortal praise for the pains which he has taken to prove that, whatever the treatment adopted, ... in a great majority of cases a certain degree of shortening, and perhaps deformity, can not be prevented." Mr. Erichsen, whose noble work on surgery finds so many readers in this country, claims, on the other hand, that he has "treated many fractured thighs, in adults, without the slightest shortening." In a clinical lecture on fracture of the femur, delivered by this gentleman in July, 1868,‡ while the last edition of the Science and Art of Surgery must have been in the press, he says there is "great liability for a certain amount of deformity to take place in the direction of shortening, notwithstanding every care on the part of the surgeon." And further on he says: "Many cases, even in the adult, have been turned out of the hospital with scarcely any appreciable shortening, and most commonly with not more than half an inch of shortening at the outside, which is a very good result in cases of oblique fracture of the shaft of the femur." Again he says: "Shortening, after fracture of the shaft of the femur, to the extent of half an inch is of no earthly consequence; it produces no appreciable lameness or lagging or difference in the gait."* Perhaps, after all, the discrepancy between these deservedly great authorities is more apparent than real—Prof. Hamilton measuring shortening by the tape-line, while Mr. Erichsen only sees it when it is sufficient to produce appreciable lameness or lagging. In the cases reported in this paper, the term *shortening*, unless otherwise stated, is used in the sense in which it is believed Mr. Erichsen used it when he says that it produced no appreciable difference in gait.

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* Erichsen—London Lancet.

† American Journal of Medical Sciences, January 7, 1870, p. 174.

‡ London Lancet.

But the main purpose of the present paper is to record my individual experience in the immediate use of the fixed apparatus, and to furnish a brief report of a number of cases illustrative of the value of this treatment.

Previous to 1865 I used starch to stiffen the bandages. Since Mr. Tufnell, of Dublin, published (Dublin Quarterly Journal, February, 1865) his very valuable paper "On the Fixed Apparatus in Fractures," † I have adopted the paste he recommends, and think it possesses advantages over any one of the substances used for this purpose.

I find in practice, however, that instead of following the receipt for the paste as given by Mr. Tufnell, it is more convenient to take, for instance, in fractures of the leg, say the whites of one dozen eggs: beat these to a stiff froth; then stir in flour briskly and well to a moderately thick batter.

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* London Lancet.

† Republished in Braithwaite's Retrospect, part 61.

If properly made, this paste dries very quickly, usually becoming sufficiently hard within two to six hours to allow of the bandages being divided with ease.

Perhaps the following description of the manner in which the fixed apparatus is used may not be thought out of place. Where extension is deemed desirable until the bandage becomes firm, or longer, the dressing is begun by applying adhesive strips to the limb after the manner first recommended by Prof. Gross. This, with foot-weight attached, is shown in fig. 1. In fractures of the shaft of the femur, as soon as the strips are put on, envelop the entire limb evenly and well in a layer of cotton-wadding. Then take a piece of moderately thick pasteboard, four inches wide, and long enough to reach from the nates to the heel; make in this, throughout its entire length and through half its thickness, with a knife, incisions one inch apart; cover this, the outer surface, with a layer of paste. Apply to the posterior part of the limb. Should the pasteboard prove too wide about the lower part of the leg and ankle, tear off a sufficiency of its edges. Place on each side of the limb, from the hip as far down toward the ankle as may be necessary, a narrow strip of pasteboard, and a single short strip on the front part of the thigh. Use now more wadding about the condyles and malleoli if necessary. Hold the splints in position by pasting or tying over them, at intervals, slips of bandage. Envelop the whole with a layer of the bandage of Scultetus, well covered with the paste. Carry from the upper part of this a strong spica.

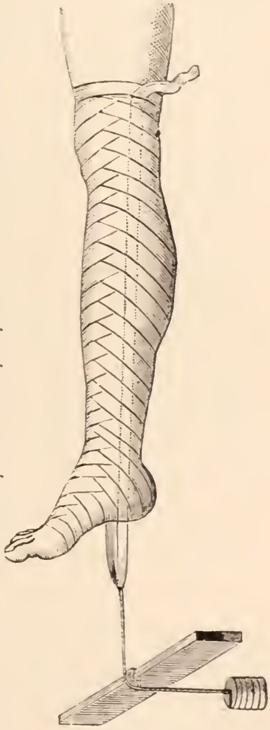

Fig. 1.

Apply a second layer of the strip-bandage. Strengthen the spica by a few additional turns; add a third layer of the strips; use the paste liberally; attach the foot-weight; and if counter-extension be desired, effect it by elastic tubing in the perineum, or by lowering the trunk; and the dressing is complete. If it be well done, immobility of the hip and entire pelvis is almost certainly secured. Fig. 2 illustrates this dressing. In fractures of the leg I also use three splints of pasteboard. One, four inches broad, applied on the back of the leg, and reaching from three inches above the knee to a short distance below the heel. The two others are applied on the sides of the leg, and are made sufficiently long to meet on the sole of the foot. In children I usually dispense with splints, the eggs and flour making the dressing sufficiently firm.

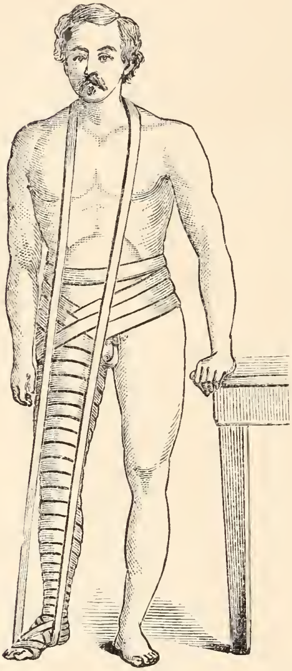

Fig. 2.

The first series embraces ten cases of fracture of the thigh-bone.

Case I. W. G., a four-year old boy, fell a distance of a few feet on to the pavement, fracturing his right femur transversely in its middle third. The next day I applied the immovable apparatus, adjusting it while the patient was under chloroform. I made for the succeeding twelve hours extension and counter-extension as well as could be done with a refractory child. In a couple of days the youngster was sitting up in bed playing with his toys. To satisfy his physician that apposition of the parts was satisfactory, I slit the dressing over the thigh, securing it after with the loop-knot. In five weeks union was complete, without perceptible shortening.

Case II. Mary McC., aged nine years, a very delicate child, fell from a fence and got a transverse fracture in the lower third of the femur. The immovable apparatus was applied immediately. She took to crutches in a week, and at the end of six weeks was discharged, with shortening of but one fourth of an inch.

Case III. - Lewis, a robust negro, aged six years, fell a distance of five feet, producing a transverse fracture at the middle of the left femur. The immovable dressing was applied within an hour. He hobbled about on his little crutches at the end of four days. In six weeks he was dismissed, without deformity or perceptible shortening of the limb.

Case IV. A stout girl, aged thirteen years, while balancing herself on a flour-barrel, fell and fractured her right femur obliquely at its middle. In two hours after the leg was encased in the immovable apparatus. She used crutches and a sling in ten days, and made a perfect recovery in seven weeks.

Case V. Mary M., a slender child of eleven years, fell a distance of eighteen feet and fractured the left thigh transversely at its middle. The limb was dressed within an hour, as in the previous cases. In a week she trusted herself on crutches; in five more weeks she went on foot without appreciable shortening.

Case VI. A painter, aged thirty, a powerfully muscled man, fell from the roof of a building into a pile of sand, fracturing both thighs: the right at two points, at its lower fourth and at its middle; the left about its center. I made extension by weights and adhesive plaster, and applied the immovable dressing. Things went smoothly. In eight weeks the dressings were removed. Some deformity of the right thigh was visible. There must have been shortening also;

but whatever was the degree it must have had compensation by equal shortening of the left leg. The man certainly walks well, and has resumed his trade.

CASE VII. Mac., aged nine years, while standing on the platform of a railroad-car, going at the rate of fifteen miles an hour, was struck by the end of a fence-rail, which tore his pants off, and fractured his right thigh-bone in its middle. The limb was dressed as above within six hours. He recovered, without perceptible shortening.

CASE VIII. The same patient, three weeks after he was up and about, fell down a stairway and got a second fracture in the same situation. He was treated as before, with a like result.

CASE IX. A railroad employee, aged twenty-two years, very stout and muscular, was caught between two cars, breaking his left thigh at its upper third. Fourteen hours after I put it in the immovable apparatus. In six weeks the dressings were removed, and the limb found to be of its proper length.

CASE X. A lad, aged fifteen, was thrown with sufficient violence against a curb-stone to break his right femur at its middle. The limb was dressed as above within two hours, and when liberated at the end of five weeks, was without appreciable shortening.

The second series of cases relates to fractures of one or both bones of the leg, and also numbers ten cases.

CASE XI. J. R., aged eleven years, was kicked by a horse on the left tibia just below its tubercle, producing a compound, comminuted fracture. The laceration of the soft parts was excessively ugly. Three hours after I put the limb in the immovable apparatus, carrying it well up the thigh; I then cut out a space sufficient to dress and watch the wound. I picked out with my fingers several fragments of bone, and brought the parts into tolerable apposition. At the end of five days he was taken in a wagon over a rough road, nine miles into the country. In nine weeks he walked into my office with a firm, smart step, and without the slightest shortening of the limb.

CASE XII. Captain N., aged sixty-four, fell from a ladder on Tuesday, and broke both bones of the leg transversely in their middle third. The fracture was dressed in the usual way by the physician who first saw him. He had an atrocious night, and early the next morning sent for me. I found the limb hot, painful, and swollen. I applied the immovable dressing and left him comfortable. The next day he sat up, with his leg resting upon a chair. The following Sunday he went on crutches, with his foot in a sling, two hundred yards to church. In six weeks I turned his limb loose without deformity or shortening.

CASE XIII. Mr. D., aged fifty-six, jumped from the hurricane-deck of a burning steamer, at the wharf at St. Louis, on to a boat alongside, a distance of twenty-five or thirty feet. He was picked up senseless, and with both bones of the left leg fractured in their upper third. He got an opiate, had the limb well encased in splints and pillows, and came home by rail. I saw him forty-eight hours after the accident; he was worsted by the journey. The limb was swollen and the soft parts considerably contused. I applied the immovable apparatus in the afternoon; that night at one o'clock he sent for me because of such pain in the leg that he was unable to sleep. I divided the dressing from toe to knee, giving immediate ease, and secured it with a loop-bandage. In a few days the patient sat up; in a few more he was comfortable on crutches; in fifty-six days all dressings were removed. There was no shortening.

CASE XIV. M., a locomotive driver, received a blow on the right leg, fracturing it transversely in its middle. He was brought a distance of thirty miles on the cars to the city. His limb was put in temporary dressings by my friend Prof. Bayless; the next morning I applied the immovable apparatus. In a week the patient used crutches. In six weeks he was discharged cured, without shortening.

Case XV. A negro man broke both bones of his left leg near their middle. The immovable apparatus was applied at once. The man went about in a few days on crutches, and made a good recovery, without shortening.

Case XVI. Mr. C., a railroad employee, got a simple transverse fracture of both bones of the leg in their lower third. The limb was put in the immovable apparatus. The patient sat up the next day; in a week he was going on crutches in comfort; at the end of six weeks the dressings were removed; and there was no shortening.

Case XVII. Mr. B., of Scott County, Ky., got a compound fracture of the right tibia just below the tubercle by the kick of a mule. The wound in the integuments was three quarters of an inch in diameter. The soft parts immediately concerned were much contused. The hemorrhage was considerable, and had, as I was told, been difficult to arrest. I saw the case fourteen hours after the accident. In removing the temporary dressings blood again flowed freely from the wound. I immediately plugged the opening with carbolized lint, which I secured by some turns of the roller. This I allowed to remain until I had applied the immovable apparatus; I then, before the eggs and flour had hardened, cut the necessary space in the bandages and removed the plug; no hemorrhage followed. Approximation of the edges of the wound by plaster and the application of carbolic lotion completed the dressing. The parts were not disturbed for six days, when the wound was found to be a granulating sore, almost healed. Two days after the patient rode on the cars to his home, distant a hundred miles. His recovery was rapid, uninterrupted, and without shortening of the limb.

Case XVIII. F. S. fell on the ice; broke his right leg at its lower third. In three hours after, the immovable apparatus was applied. Three days subsequently he resumed his business (faro-dealing), and in six weeks was well, without shortening.

Case XIX. J. F., adult, got a fracture of the left tibia, in its lower fourth. The immovable apparatus was put on immediately after. In two days he was on crutches; in forty days he was well. No shortening.

Case XX. Col. —— broke his fibula at the inferior fifth. The next day the fixed apparatus was applied. In two weeks he went by rail to New York, and recovered without trouble.

I could add yet other cases to this list; but as they differ in no material point from those already detailed, I omit them. I have purposely omitted a number of cases of fracture of the thigh and leg, seen in the practice of others, as the consulting surgeon, where the fixed dressing was not applied until the expiration of from seven to fourteen days after the accident. My wish is merely to direct attention to the use of this dressing *immediately* after the fracture occurs, being persuaded that the delay enjoined by many high authorities is, to say the least, unnecessary. While I have followed for years this plan of putting up limbs, I have been called on to open the bandages, by reason of pain or swelling of the parts, in but a single instance; and in this the fault was mine rather than that of the dressing. Yet to obviate in some degree the principal objection urged against this dressing—that it may become too tight as the swelling augments, or too loose as the swelling subsides (all without the knowledge of the surgeon)—I venture to recommend that as soon as the paste becomes dry the bandages should be cut throughout their entire length (as represented in fig. 3), and their edges brought together either by additional

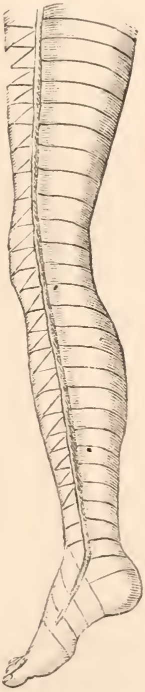

Fig. 3.

strips or, better, by loop-knots (as seen in fig. 4). If this be done—and it may always be done in a few hours, if the paste suggested by Mr. Tufnell be used—I am unable to conceive how, if mischief follow, it can be fairly chargeable to the dressing. And if in addition the bandage be applied in strips, instead of as a roller, I must believe that the least skilled manipulator can dress a fractured limb without the slightest risk of danger from undue pressure. If swelling occurs, the dressing can be instantly loosened. When the parts shrink the edges of the apparatus can be pared or overlapped. The limb lies in a bed which, though perfectly soft, is yet sufficiently snug and firm to insure entire immobility. Seutin advised division of the apparatus when it became dry; but when starch is used this is seldom before the expiration of thirty or forty hours—the very period at which swelling is likely to occur. I myself rarely slit up the dressing before the end of twenty-four hours. I have never been called on to do so in consequence of pain in the limb, except in the single instance referred to. I not infrequently allow it to go untouched until its final removal. For where the fracture is put up immediately, and with proper care, swelling is not likely to occur. Should it, however, already exist, it will be necessary when it has begun to subside to open the apparatus, and trim or overlap the edges.

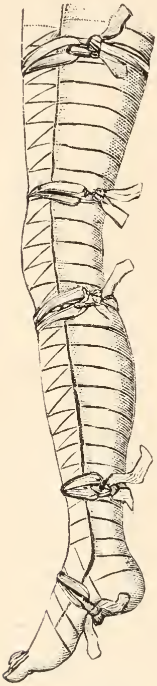

Fig. 4.

As soon as the patient gets on crutches, which should be within the first five days, extension of the limb may be safely trusted to its own weight plus that of the apparatus. I am not sure that extension by other means is ever required where the fixed dressing is used.

Louisville, Ky.

Reviews.

Obstetric Operations, including the Treatment of Hemorrhage. By Robert Barnes, M. D., F. R. C. P., etc. With Additions by B. F. Dawson, M. D., late Lecturer on Uterine Pathology in the Medical Department of the University of New York, etc. New York: D. Appleton & Co.

This is a handsome volume of nearly five hundred pages. As long as the unwise and wicked tax on knowledge, known as duty on imported books, remains—a law which is unjust to foreign publishers and authors, unjust to American authors and to American readers—we will have reprints issued by our publishers, and it is fortunate when the excellent house of Appleton & Co. publish such works.

It is hardly necessary to speak of the general value of this book, and utterly impossible to speak of its great merits in detail, for that would involve a transcript of page after page. We beg any of our friends who believe that obstetrical science and art do not progress, and who are content with the lessons taught fifty or even twenty years ago, to read "Obstetric Operations," and they will change their opinions, and in some important respects their practice. Every physician who is called to the duties of an accoucheur ought to have this book not only in his library, but in his head; it will add greatly to the confident and successful discharge of his professional duty. It has numerous illustrations, most of them being by the author, and thus the value of the volume is enhanced, and the ready understanding of the text facilitated.

Dr. Dawson, so well known to the profession as really the founder and one of the editors of the American Journal of

Obstetrics, and whose energy and zeal in this department of medicine are worthy of praise, has made some valuable additions: at the same time we question the propriety of *editing* and *adding to* the recent works of the living; and Dr. Barnes certainly could well enough make his appearance without an escort before the American profession.

We notice some errors in proof-reading: *e.g.*, on page 419, where the diagnosis of chronic uterine inversion is under discussion, we read "pass a finger into the uterus," etc. Of course rectum should take the place of uterus.

Still further, with the kindest regard and respect for Dr. Dawson, we must protest against his suggestion, made just before detailing the recent original and brilliant operation by Prof. Thomas, in a case of chronic inversion of abdominal section—abdominal section with instrumental dilatation from within of the constricting cervical ring—that this operation "may perhaps be resorted to in some case of puerperal inversion which demands prompt reduction." It is hardly in the remotest degree possible that a recent inversion should require any such proceeding.

A Manual of Clinical Medicine and Physical Diagnosis.

By Thomas Hawkes Tanner, M. D., F. L. S., etc. Third American from the second English edition. Revised and enlarged by Tilbury Fox, M. D., of London, Physician to the Skin Department in University College Hospital. Philadelphia: Henry C. Lea. 1870.

We are not among those who oppose manuals and look upon them as temptations to the student to neglect more elaborate works. Many read manuals and medical journals who would never read anything else, and surely it is better to read a little than none at all. It would be better for the profession if medical works generally were more compendious.

The manual under consideration has from its first appearance met with success; and this last edition, brought out by that clever and industrious writer, Dr. Tilbury Fox, is destined to exalt the reputation of its already distinguished editor. Much new matter has been added, including articles on the laryngoscope, ophthalmoscope, sphygmograph, and thermometer; on the administration of chloroform; feigned diseases, heart diseases, cerebro-spinal and abdominal diseases; and an analysis of the urine. To medical examiners for life insurance companies, and to those interested in medico-legal questions, the manual is especially valuable. Had it not been a good book originally, Tilbury Fox would have made it so in editing it. L. P. Y., JR.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S., etc. With an Introduction on General Anatomy and Development, by T. HOLMES, M. A., Cantab. Philadelphia: Henry C. Lea. 1870.

The American reprint of Gray's Anatomy, fifth edition, has been issued. Sixty pages have been added to the text and sixty-two new illustrations. The histological considerations which were before scattered throughout the work have been collected into an introductory chapter, rewritten, and an additional chapter on the anatomy of the fetus has been inserted. The work has been carefully revised both in England and America, and errors of the press which had crept into previous editions have been expurgated.

The new arrangement of matter in the present edition is of questionable benefit. We doubt the right of precedence of microscopic to descriptive anatomy. We are certain that with most students any knowledge acquired of the structure of bone will be pretty thoroughly effaced in the struggle with the minute anatomy of the nervous and other systems before the chapter on osteology is reached. The old arrangement was better where the histological considerations immediately preceded the several systems. The additional chapters on the anatomy of the fetus were called for, and we are glad to see them inserted. The new illustrations are in the main up to the old standard; some few, however, are almost laughably deficient both as works of art and copies of nature.

It is too late to call attention to the general excellence of Gray's Anatomy. The fact that it has been the text-book of three fourths of the students of medicine in this country during the past ten years is sufficient evidence of its worth. Other anatomies excel it in certain points. Wilson has been freer from errors and is more concise; Cruvelhier's work, which was killed by its publishers in this country, is more philosophical; but the exhaustive descriptions, the lucid arrangements, the bold and faithful plates, and the practical observations on surgical relations, make Gray's by every odds the most satisfactory anatomy to the student, teacher, or practitioner. The announcement that the errors in the text have been expurgated, we are glad to find by a careful examination correct in the main. We call attention, however, to the following:

Page 190—Of the thorax it is said, "it is the largest of the three cavities connected with the spine;" and on page 723, "the abdomen is the largest cavity in the body." One must yield.

Page 509—The description of the superior vesical artery, to say the least, is awkward. "The portion of the same vessel (the hypogastric artery) extending from the summit of the bladder *to within an inch and a half of its origin* is not totally impervious, though it becomes considerably reduced in size, and serves to convey blood to the bladder under the name of the superior vesical artery." The inference at least is that the superior vesical artery does not include this "inch and a half."

Page 553—"The hemorrhoidal plexus surrounds the lower end of the rectum, being formed by the superior hemorrhoidal veins, branches of the inferior mesenteric, and the middle and inferior hemorrhoidal." "Branches of the inferior mesenteric" should be put in parentheses.

Page 700—Bizot's statement that the walls of the left ventricle are but twice as thick as those of the right is still adhered to, when it must be evident to any one who examines them that the proportion of three or four to one, as given by most anatomists, is nearer the truth. Besides the measurements of Bizot, as quoted in Pancoast's Wistar, do not authorize this statement except for that portion of the ventricle next to the auriculo-ventricular septum.

Page 845—"The artery of the bulb passes transversely inward *along the base* of the triangular ligament," which is not so, and is not so stated in the first description of the artery on page 513.

We could have wished a better account of the circulation in the liver. It is hard for the student to get an idea of it from the present description. Kiernan's, as quoted by Wilson, is far more satisfactory.

We are glad to see the old arbitrary selection, which went under the name of the "abdominal contents" in other editions and other anatomies, give place to one made up from the viscera alone.

But Gray's Anatomy, for the purposes for which it was issued, is the great anatomy, whether in its own or other languages, and just such a work as we could have expected from a member of the Faculty of St. George's. The thanks of the profession are due to Mr. Lea, its publisher in America, for rescuing it from the fate of Cruvelhier's noble work, and presenting it in so admirable a form. R. O. C.

Manual of Chemical Examination of the Urine in Disease.

By Austin Flint, jr., M. D. New York: D. Appleton & Co.

In this little book, which is a model of neatness throughout — binding, paper, and letter — we are presented with a concise compilation of all the facts required to be known in the examination of urine in disease. It is a book which we have long desired to see published, from the fact that most treatises upon the subject are too cumbrous for the wants of the busy general practitioner. Professor Flint has gone further than mere compilation of a manual; he has by careful study and accurate experiment prepared a standard apparatus, from which, with the aid of the manual, any practitioner can derive those diagnostic conclusions, by analysis, for which he has heretofore been obliged to refer to some distant chemist. The whole work is contained in seventy-five small pages, with a chart for chemical examination, and brief directions for examination of the common varieties of urinary calculi.

W. B. F.

Clinic of the Month.

SARSAPARILLA IN SYPHILIS.—Dr. Allbutt, of Leeds, makes much use of and has great faith in the alterative and anti-syphilitic powers of sarsaparilla. The remedy is used by him as a decoction, which differs only in unimportant details from the compound decoction of the Pharmacopœia. Of this he administers from four to ten ounces three times a day, or prescribes some such quantity as a pint or a pint and a half, to be taken at will during the twenty-four hours. "This medication is expensive, no doubt, but that treatment is the cheapest which most quickly cures the patient. The cases in which sarsaparilla is most useful are those in which the system is thoroughly infected with syphilis, during the tertiary and visceral modes of its appearances. In persons who are in a thoroughly cachectic state, who have lost flesh and strength, and who are suffering from sluggish ulcerations and indolent gummata, the sarsaparilla is really of very great value; also in patients whose constitutions have been undermined by want of nourishment or by excesses, who have gone through many courses of mercury, whose irritable mucous membranes will not bear any more iodide of potassium, and who are so sallow, so worn, so broken down, so eaten up by disease as to seem fit only for the grave. These persons clear up on such quantities of sarsaparilla as I have named, and it is here that the drug fills so important a gap. It need not, and it will not, supersede mercury and iodide of potassium in straightforward cases; but it has its place where these means have failed, or where they are on some grounds to be avoided. How far we are right in claiming this important place for sarsaparilla can only be known after an extended use of the drug, according to our method, by the profession at large.

"Mr. ——, a gentleman of fortune, who enjoyed every advantage in conditions of life and skilled advice, had never been able to shake himself free from an old syphilis. He had no cutaneous eruption of importance, but was spare, haggard and sallow; his hair fell off, his appetite was capricious, his bowels irritable, and his strength deficient. He was liable also to neuralgias, which were really dreadful, often amounting to great agony. They were chiefly cranial, but also of the nocturnal tibial variety. There were many irregularities of the cranium and of the flat bones. Mercury and iodides, though administered under first-rate advice both in England and Germany, had failed to relieve him; for they were so ill-borne that no continued course could be prescribed, whether combined with tonics and nutrients or alone. I advised sarsaparilla. The medicine agreed with him, and he tried it carefully. He took at most about two pints daily for about three months. Altogether he took more or less sarsaparilla for about five months. His general nutrition improved first, and the 'cachexia' abated; in the next place his neuralgic pains diminished and disappeared. Since this time nearly two years have elapsed, and he has remained healthy and vigorous beyond the average of men." (Practitioner.)

FOOD IN NERVOUS DISORDERS.—G. F. Blandford, F. R. C. P., writes that the unaided effects of food in nervous weakness and its attendant disorders have not in all cases met with the trial they deserve. First on the list of the neuroses he describes low nervous depression or melancholia, and says: "If we see such sufferers at an early stage when forcible feeding is not necessary, and they will take that which is ordered, we may prescribe a very large amount of food without fear—nay, with a confident expectation of the greatest benefit. What the food is to consist of is a point on which little need be said. It is not necessary to adhere to a sick-diet—to beef-tea or boiled mutton, to essences of beef or Liebig's food, or any other of the concentrations so loudly recommended. The ordinary diet-list of the individual in health may be given without hesitation—fish, game, poultry, meat, puddings, and the rest. His appetite should be stimulated by variety, and his dishes may be savory as well as wholesome; but the supply must be large. Such patients for the most part have accustomed themselves to eat during the day a scanty and insufficient amount, and we shall be told that latterly they have not taken half their usual quantity. It is not too much to say that they require double that which they have so long taken; and as we shall not be able to induce them to eat double the quantity at a single meal, it will be necessary to multiply the number of the meals. Instead of breakfast, lunch, and dinner, two of which have probably been but the semblance of a meal, we may institute a series of feedings after this kind: first, something may be given early in the morning, before the patient gets up, as rum and milk, egg and milk, chocolate or *café au lait.* This will be useful in allaying the feeling of extreme depression, and dispelling the gloomy and suicidal thoughts so constantly present on first waking. Next, breakfast may be taken, after dressing, and between it and a two-o'clock lunch something else, as beef-tea or a sandwich. The dinner-hour should not be later than six, and at bedtime some light kind of supper should not be omitted. By this kind of division food may be administered six times in the day; and if the patient wakes in the night, and is restless and nervous, and disinclined to sleep again, food, taken even in small quantity, will often bring back sleep. With all this food may be given a reasonable amount of wine, or wine and stout; and this not by way of curing the disorder by stimulants, but because in conjunction with them less food appears to be required, and also because the addition of some wine or beer often renders the taking of the food more easy to the patient. Patients have recovered under this treatment in a singularly rapid manner. Some learn in a short time to appreciate the benefit of the food, and miss their meal if from any cause they are unable to take it at the appointed hour; and some have gone on, for years after their recovery, taking not the quantity prescribed during the acute stage of their illness, but one very much larger than that on which they had endeavored to live for so long, and under such a change of regimen have lost all trace of the depression and hypochondria from which they formerly suffered. Although beef-tea, chocolate, and milk have been mentioned as articles of diet, it by no means follows that liquids are to predominate; on the contrary, solid food is far better as a sedative, and also far more nutritious, and it may be taken as in health. Much has been said concerning the advantage of fatty food in nervous disorders, and sugar has been thought to disagree with these patients; but in my own experience I have found that all the various foods—the fatty, the starchy, sugar, and meat—may be given, in due proportion at any rate, to the individuals now under consideration. If this amount and description of diet be administered, there will be little need of medicine, except perhaps of morphia or chloral, to procure sleep at the commencement of the treatment.

"In chronic alcoholism the good effects of food are often strikingly manifest. The intense sinking and craving for the accustomed stimulus may often be effectually met by food, especially if a small quantity be given frequently, as recommended already. Whether the symptoms be the transient and immediate results of a heavy debauch, or the graver signs of commencing degenerative change of the nerve tissues, which runs on to alcoholic paralysis, epilepsy, or dementia, food is equally demanded, and is the one thing which can arrest this degeneration by supplying nutritive elements in large quantities. The recovery in such cases is often astonishing."

Few hysterical or hypochondriacal people take an adequate supply of food. Their nervous energy is very low, and the defect must be supplied in some way. Food is the great restorer. In many cases of neuralgia it will be found that the quantity of food taken, for a series of years, has been deficient, and the radical cure—not the mere alleviation—is effected in many cases by increasing the amount of nutriment to the nervous.

"In all chronic forms of neuroses alcoholic stimulants, in any but the smallest quantity, are a hinderance rather than a help—are productive of evil rather than of good. In such disorders the fear, so commonly entertained both by doctors and patients, of "overloading the stomach," producing "biliousness," and the like, is in the majority of cases not realized when the plan of administering food in large quantity is tried." *(Ibid.)*

On the Local Treatment of Gastric Disease.—Introduce a sound into the stomach, and attach its upper end with a piece of india-rubber tubing to the short arm of a glass syphon, the other end of which has a long portion of tubing attached to it. The patient being told to cough, or to make an effort at vomiting, the instrument—supposing the stomach to have been filled with fluid—immediately begins to play, and continues to act till the contents of the stomach are evacuated. By reversing the conditions, on the other hand, the stomach can be filled. In introducing the sound the mouth should be kept wide open; and, as much saliva is usually secreted, the head should be bent forward and the fluid allowed to flow away. No violence should be used. The washing out of the stomach with alkaline, acid, or spring-water should be performed daily in the morning while the patient is fasting, and continued till the water flows out from the syphon quite clear. *(Ibid.—Deutsches Archiv für klinische Medicin.)*

TREATMENT OF DIARRHEA IN CHILDREN. — M. Heller recommends in the diarrhea of infants the nitrate of bismuth, in doses of one half to one drachm, repeated every hour till better, which usually happens in twenty-four hours. *(Ibid.)*

GALVANO-FARADIZATION.—Dr. G. M. Beard, New York, says there are cases where the peculiar effects of both currents are indicated, and instead of using them alternately or in succession, as has hitherto been done, he applies them *simultaneously*, a method which he calls *galvano-faradization.* The obvious advantage of this method is in those cases where both galvanization and faradization seem to be indicated, and where it may be difficult to decide which is to be preferred; it shortens the time and labor that are necessary for a separate and successive trial of the two currents. (Physician and Pharmaceutist.)

PARALYSIS TREATED BY COLD OR HEAT ALONG THE SPINE.- Dr. Chapman, whose name is associated with the spinal ice-bag, concludes a report of several cases of paraplegia, successfully treated by ice and hot water to the spine, by saying he has been informed of several cases of paralysis in which other medical men have either effected a cure or have conferred great benefit by adopting the treatment in question; and that in his own practice increasing experience confirms the statements which he was led to make in the first instance concerning the great remedial power over paralytic affections which this therapeutical method places in our hands. The same author records cases of enteric hemorrhage, pulmonary hemorrhage, uterine hemorrhage, and epistaxis, all relieved by the application of heat over the vaso-motor nerve centers. (Medical Mirror.)

TRICHINA.—A chemist is said to have discovered a remedy for the trichina. It is nitro-glycerine, inserted either into the hog or the eater of the pork, and then exploded.

WOOD TAR AND CARBOLIC ACID IN PSORIASIS.—Dr. M'Call Anderson refers to these as follows:

"Tar should be given in treacle, or in the form of capsules; but on no account in the form of pills, as they are apt to become hard, and consequently useless. The dose is two or three minims, thrice daily, and it may be gradually increased to twenty if necessary. If the digestive organs are in good order and the bowels free, and if too large a dose is not given at the outset, the medicine agrees perfectly. It is useful in cases of chronic psoriasis implicating a large extent of surface; also in cases of chronic eczema, especially if associated with chronic catarrh of the stomach or bowels, or with chronic bronchitis—morbid conditions which it sometimes modifies or removes entirely. . . . . Within the last two years, encouraged by the result of the tar treatment, I have tried on an extensive scale the internal administration of carbolic acid, which, as might be expected, is indicated in the same class of cases as the tar preparations. I prescribe it in doses of from three to ten grains, thrice daily, and usually in the following form: crystallized carbolic acid, three drachms; glycerine, one ounce; distilled water to six ounces; a teaspoonful, in a large wine-glassful of water, thrice daily, some time before food. If the same precautions are observed as in the case of tar, the remedy never disagrees, although transient giddiness is sometimes complained of a minute or two after it is taken, especially after the morning dose. If no improvement takes place within two or three weeks, it generally does not succeed, or at all events not without increasing the dose; but a slight aggravation of the eruption for a few days after the medicine is commenced is by no means an unfavorable symptom. Carbolic acid is especially useful in cases of chronic psoriasis, and not unfrequently I have succeeded in removing the eruption after a fair trial of arsenic, although on the whole it is not so useful as the latter. Those, however, who have much to do with the treatment of psoriasis can not but consider it a great boon that another remedy has been added to the very limited list of internal medicines which are capable of modifying that most obstinate disease." (Lancet.)

SULPHUROUS ACID IN NECROSIS.—George Pollock, Esq., of London, advocates sulphurous acid as a local application in the treatment of carious and necrosed bone. He states that it possesses the advantages of being a very simple and perfectly safe application for the purposes indicated; is thoroughly antiseptic when used as a dressing for foul diseased bone cavities; is comparatively painless when applied to carious bone; and is seldom productive of any irritation in the surrounding soft tissues. In some cases Mr. Pollock uses the acid pure, but in most diluted with an equal quantity of water. *(Ibid.)*

LOSS OF SENSE OF SMELL.—Dr. Notta has an elaborate article on this subject, accompanied by twenty-four cases. In reference to the *duration* of this loss, the author states that while permanent when the olfactory nerves have become atrophied, or pressed upon by a tumor, yet there are numerous cases where it is temporary, when resulting from coryza or from traumatism, recovery of the sense taking place in from three weeks to seven months, so that the reëstablishment of the function may be hoped for, if no more than a year has elapsed since its loss. The author has found no benefit in therapeutics—veratrum and sternutatory powders having been vainly tried—nature alone effecting a cure. *(Arch. Gen.)*

ON A NEW METHOD OF TREATING GOUT.—Dr. Fontaine, in a paper communicated to the Academy, states that he has great faith in the efficacy of colchicum in gout; but finds the effects of the drug are best obtained by giving it for but a few days at a time, then suspending its use, and then resuming it. He thinks that it should never be given for more than two or three days continuously. In order to prevent the formation and promote the destruction or elimination of the uric acid from the economy, he uses—1. Arseniate of potash; 2. Chlorate of potash; 3. Benzoate of lime. M. Fontaine believes the arsenical salt possesses the power of reparation, reconstructing the globules, and regulating the functions of combustion. He gives the chlorate of potash to oxidize the uric acid and the benzoate of lime—previously advised by Ure and by Bouchardat—for the purpose of transforming the urate of soda into the more soluble hippurate, for its solvent action upon the uric compounds, and for its slightly diuretic effect. *(Ibid.)*

DIPHTHERIA.—Letzerich has published an interesting paper on diphtheria. By examination of the diphtheritic membranes from a number of children attacked with laryngo-pharyngeal diphtheria, he has observed different stages of development of what is probably the *zygodesmus fuscus*. Upon the free borders of the diphtheritic masses there are innumerable spores, generally nucleated; these spores are developed with great rapidity, so that the adjacent mucous membrane is soon invaded, and the infection completed. The discharges from the throat of the patient are very contagious, and these spores therefore should be destroyed by caustic alkalies. The author advises free cauterization of the pharynx, inhalations of lime water, and the administration of sulphate of iron. (Virchow's Archives.)

[We can add our testimony to the value, in this disease, of lime water as a local application; but where the diphtheritic formation is limited to the fauces, instead of using it in the form of spray, better by means of a syringe freely wash with the lime water all the affected surface at least three times a day. Conjoined with this let the patient have ice in abundance, and also administer chlorate of potash, with muriated tincture of iron. By the way, we observe that Niemeyer advises the iron and potash.

A word on another matter, though not *directly* connected with therapeutics. Before adopting too promptly the assertion of Letzerich, as to the fungous character of the diphtheritic formation, it would be well to remember that one of the first of microscopists, Dr. L. S. Beale (the Microscope in Practical Medicine), has said: "It is true that in many cases sporules of fungi are met with, but many circumstances prove satisfactorily that they merely grow in the false membrane, as in a nidus, favorable to their development, and are not to be regarded as the cause of its production."—T. P.]

COUNTER-IRRITATION IN DISEASES OF THE EYE.—Mr. Solomon, F. R. C. S., Professor of Ophthalmology in Queen's College, Birmingham, says:

"A very large number of eye diseases are curable without counter-irritants; nevertheless there remains a by no means insignificant number where strikingly good results attend upon or follow their use. As means of exciting counter-irritation, I employ the thread seton, the moistened lunar-caustic stick, blisters, croton-oil liniment, emetic-tartar plaster, and the pea issue. As regards the situations suitable for their application, I use a single thread in the temple, two or three when the mastoid region is selected, several in the nape of the neck. The moistened caustic stick is rubbed sometimes across the forehead, just above the brow and root of the nose; more often over the brow, temple, and malar bone; occasionally upon the superior lid. I never direct blisters or croton-oil to be put on the temples *as counter-irritants*, but reserve them for the mastoid region and nape of the neck. Pustular irritation should be confined in its application to the posterior half of the scalp. The arm is the preferable site for the pea issue, which is best made by an incision. In a male adult I seldom insert less than three peas or more than four. A single thread seton in the temple proves of special advantage where the conjunctival layer of the cornea is vascularised. The more interstitial (the deeper) the keratitis, the less valuable is the thread as a therapeutic agent. Indeed it is useless, in the specific insterstitial form, until the stage of resolution has become established, when absorption is perhaps promoted by it. As a remedy against the superficial vascularity which often lingers after all active disease has subsided it is very valuable. In all cases of vascular ulcer, fascicular keratitis, and pustules of the cornea, it may be advantageously employed at the onset of the attack. (In catarrho-pustular conjunctivitis it has no effect.) The seton is not, however, the sole remedy for these diseases, nor in all cases the most effective.

"Where the inflammation of the cornea is manifested by zonular redness and superficial cloudiness in the membrane, I employ atropine drops, and the moistened caustic stick in place of a thread; also in that form of keratitis where we find thickening and vascularisation of the margin of the epithelium corneas, and a ciliary conjunctival vascular wreath instead of a zone. The stick should be lightly applied over a good breadth of surface. Severe vesication is unnecessary; ulceration I esteem baneful. The seton ought not to be inserted too near the eye; the most convenient place is well back in the short hair of the temple; and if the needle is carried in the direction of the trunk of the temporal artery, the formation of a thrombus will be prevented. In some patients the disease of the cornea proves obstinate until the thread gives rise to a free discharge of pus. The thread should not be removed till some ten or fourteen days after all pathological vascularity has sudsided; for, if withdrawn too soon, the red vessels which traversed the cornea reäppear.

"In superficial vascularity of some duration the seton rarely fails to cure. [It has been assumed throughout these remarks that the keratitis is altogether independent, in respect to its origin, of mechanical irritation of the lids, and of disease of the lachrymal apparatus.] When both eyes are affected I insert a seton in each temple; and if a single thread fails to excite sufficient irritation it must be doubled. In cases of double keratitis, treatment, not necessarily by seton, of one eye is sometimes followed by improvement of the other; and I may here remark that any sort of treatment which relieves the photophobia is often a step toward improvement of the child's general health. A seton in the temple is not, in by far the large majority of cases, "a severe remedy." It will, however, sometimes give rise to abscess, erysipelas, or severe phlegmonous inflammation. The occurrence of abscess may be prevented by the daily cleansing and shifting of the thread, and the occasional use of a poultice. Erysipelas is due, I believe, to lack of hospital hygiene, as I have never noted its occurrence among out-patients. Owing to the proneness of certain young persons to phlegmonous irritation, I have found the seton in them to be totally inadmissible as a means of relief.

"It has been attempted to determine the relative value of two applications—as, for instance, the painting of tincture of iodine upon the lids, and the instillation of prussic-acid drops—by confining each one to the right or left eye of a patient affected with double keratitis and photophobia. Inferences so derived are untrustworthy and valueless, inasmuch as keratitis, and some other ophthalmiæ, do not run the same course in both eyes, or terminate in the same amount of structural change, whether left to run an undisturbed course, or submitted to constitutional treatment alone, or to the influence of local agencies only.

"In chronic interstitial keratitis, emetic-tartar pustulation upon the nape of the neck is a good remedy. In relapsing iritis, unconnected with important adhesions of the membrane to the capsule of the lens, or to the cornea, an issue in the arm, consisting of two or three peas, proves productive of very satisfactory results. A seton over the mastoid is useful in certain obstinate inflammations of the choroid. In the retinitis of albuminuria, pustulation over the neck with croton-oil liniment is, I have satisfied myself, a valuable addition to other treatment. Where an ophthalmia is complicated by cerebral congestion the efficacy of irritation upon the neck or occiput admits of no doubt. In gouty affections of the choroid and chronic ophthalmia, blisters behind the ear, or mild irritation over the nape, with croton-oil, are remedies which should not be forgotten. *Counter-irritation of any sort is unnecessary, and often highly injurious, when applied to infants at the breast.* It is almost without value in the *acute* stage of an ophthalmia which is characterized by a copious purulent or muco-purulent discharge. When the pain from a counter-irritant is so severe that the health of the patient becomes seriously disturbed, its employment should be omitted, or changed for one of a milder kind. (Lancet.)

TRANSFUSION SUCCESSFUL IN A CASE OF POSTPARTUM HEMORRHAGE.—Dr. Thos. E. Beatty, M. R. I. A., in a graphic report of a case of postpartum hemorrhage, in which it was manifest that the patient had not many minutes to live, recommended transfusion. The husband furnished the blood, and about ten ounces were drawn from his arm by Dr. R. M'Donnell. This, as it flowed into a common bowl, was agitated briskly with a glass rod, in order to separate the fibrine; and the agitation was kept up after the full quantity had been drawn, and for some minutes after, until a large coagulum of fibrine adhered to the glass rod. During all this time the bowl was kept floating in a basin of hot water. The blood was then strained through a muslin cloth, and all the fibrine was thus separated. All this was done in the parlor, and the blood thus prepared was carried up to the patient's bed-room. The difficulty of the operation now commenced. The patient was as a corpse, bloodless; there was no trace of a vein to be found in her arm. A ligature tied round above the elbow showed nothing. By feeling cautiously, what we imagined to be a vein was perceived. Dr. M'Donnell now pinched up a fold of skin at the bend of the arm, ran a narrow bistoury through it, split it up, and displayed the veins at the bottom, resembling small flat dead earth-worms. The median basilic appeared to be the largest; this he raised and opened. The bowl of blood, which, during this necessarily tedious proceeding had been kept floating in hot water, was now brought to the bedside. The injecting apparatus was of the simplest construction. A common brass enema syringe that holds about two ounces, such as is used for self-administration, was fitted with a fine india-rubber tube coming off from the side. This was about a foot long, and terminated in a fine glass tube, four inches long, running to a fine point at its extremity.* I held the bowl containing the blood with my left hand, and with the right I held the brass syringe standing upright in the blood, and keeping the lower end of it well pressed to the bottom, so as to prevent the possibility of any air gaining access to the interior. Mr. Colles worked the piston slowly and cautiously. The instrument was filled with blood till it ran out of the nozzle, and Dr. M'Donnell proceeded to introduce the glass tube into the vein. But this was very difficult to effect; for, although a very sufficient opening had been made into the vein, it was so flat and collapsed that some time elapsed before he could accomplish his object. At length he succeeded, and Mr. Colles urged the blood forward by lowering the piston. About six or seven ounces of blood were thus poured into the system of the patient. It was intensely interesting to watch the effect produced by the introduction of this vital fluid. The first change I noticed was the improvement in respiration; the long labored, gasping, sighing effort that had been so distressing to witness became more calm and like what natural respiration should be. This began to appear when about half the quantity of blood had been injected. The countenance became less ghastly, and imminent death seemed warded off when the last portion of blood had entered her vein. The restlessness and tossing still continuing, I gave her thirty drops of Batley's solution, and repeated the dose in half an hour; a third dose had the effect of producing sound sleep, from which in six hours she awoke, warm and conscious, with a distinct though very fast pulse. She asked for food, and ate a good breakfast of tea and toast. On the 23d, at twelve o'clock, she had been given beef-tea and brandy twice, and said she was quite well; her countenance was bright and cheerful; pulse one hundred and forty, small. The patient made a good recovery. This case serves to show that there is no such difficulty in safely performing transfusion as we have been led to imagine; but that when the principles which should govern the operator are fully comprehended, it rests upon his dexterity and skill to carry them out, and not upon a complicated and unwieldy piece of machinery. Like many other highly important operations, it is all in the using, not the costliness of the tools. (Dublin Quarterly Journal of Medical Science.)

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* The glass tube was used in order to facilitate the detection of any bubble of air, if such should gain entrance into the apparatus.

SYMPTOMATOLOGY AND TREATMENT OF DIABETES.—W. L., a patient with diabetes of moderate severity, was observed during four months in order to determine precisely the influence of regimen and of treatment. These are the results: 1. The production of sugar during the day is greater than during the night. 2. The increase in quantity of urine is directly proportional to the increase of sugar. 3. During the course of two intercurrent maladies—a pleuro-pneumonia, of eight days, and a rheumatismal diarrhea (in the latter the stools, which were very liquid, contained sugar, as shown by Trommer's test)—the quantity of urine and of sugar diminished decidedly.

4. Confinement to a meat regimen lessened notably the quantity of urine and of sugar. The use of bicarbonate of soda and of Carlsbad waters caused a still more rapid diminution; but the use of arsenic—one third (?) of a grain a day—seemed to have a specific action, the sugar falling from five hundred and seventy to three hundred and fifty-two grammes a day. In the case of another patient the arsenic had a salutary effect. *(Deutches Arch. Klin. Med.)*

Amputation at the Ankle-joint.—Stephen Smith, M. D., of New York, reports two successful cases of this operation, and remarks that amputation at the ankle-joint has not received that consideration from surgeons in this country which its real merits deserve. Unless the conditions are entirely favorable for a Syme's or a Pirogoff's operation, we too frequently amputate above the joint. The great value of the operations bearing these distinguished surgeons' names does not lie in the peculiarity of the flaps, but in the fact that by disarticulation the stump has for its base the broad extremity of the articular surface of the tibia. This bone, whether covered by the integuments of the heel, or sides of the ankle, or dorsum of the foot, or united to a fragment of the os calcis, is adapted to direct pressure in locomotion. In this fact alone we have the intrinsic merit of ankle-joint amputations. It should be a fixed principle in surgical practice, therefore, that whenever the integuments in the vicinity of the ankle-joint can be so shaped as to cover the end of the bone, amputation must be performed at, rather than above, the joint. (Physician and Pharmaceutist.)

Notes and Queries.

INFLUENCE OF QUININE ON THE GRAVID UTERUS.—Dr. Beauchamp, of Hamilton, Ohio, writes in reference to the alleged influence of quinine upon the gravid uterus, stating his belief that it is "miasm (toxæmia), or the condition of the system for which the quinine was given," that caused the premature labors attributed to this therapeutic agent. Dr. B. narrates two cases in illustration of his views. In the first his patient was delivered at seven months of a feeble, illy-nourished child, which lived but an hour; fifteen days prior to her labor she had intermittent fever, which was promptly cured by fifteen grains of sulphate of quinine and sulphate of cinchonia, in divided doses. Here the remoteness of the sequence forbids any connection between the antiperiodic and the premature labor. The second case is given as follows:

"Mrs. M. P. A., eight months pregnant, October 12, 1855, had been suffering repeated paroxysms of tertian intermittent since last month; was told that she must not attempt to arrest the disease, as she would certainly injure her child by the means used to break the chills. I decided to the contrary, and administered quinine during the 13th, after which no return of fever. During the night of the 14th she was taken with labor pains, and was soon delivered of a child weighing about five and a half pounds, which was so feeble that no attempt was made to dress it. I had it wrapped in warm flannels, and placed near the fire, until the afternoon of the 15th, when it was washed and dressed. The mother flooded previous to and after the delivery of the secundines, almost *ad deliquium*; and two days after the confinement she was attacked with puerperal mania, which continued for nearly a month. How much more rational to attribute the abortions and premature deliveries to the known influence of malarial poisoning or to toxæmia than to accept the "*post hoc propter hoc*" of the quininists? In fact, do we not know that in all diseases where an impoverished or poisoned blood is an essential condition, as in the exanthematous and typhoid fevers, a proneness to abortion exists; and that in these diseases we very often have premature labors. I have known in my own practice a typhoid fever thus complicated, and the death of the mother was the result; the child was dead-born. Who does not fear abortion in the pregnant woman affected with variola?

"To further substantiate my belief, let me refer briefly to two cases reported by A. Burt, M. D., in the Medical and Surgical Reporter, February 7, 1870, the premature deliveries in which he attributed to quinine. In both the patients were suffering from febris intermittens; in one the child was dead, and in the other the labor followed almost within the hour after the administration of *eight* grains of quinine. The profession would surely be astonished if so potent an agent has been overlooked; and the belief in medical progress will suffer should it be established that quinine originates or accelerates uterine contractions. In Dr. Burt's first case the child was dead; but he does not charge the quinine with its death. The malarial poisoning of the mother's blood was no doubt the cause, and it would be rational to attribute its early delivery to the same potent cause. I believe that the cases of premature births charged to quinine have really resulted from the condition of the mother's system for which the remedy was administered."

SPIRIT OF MINDERERUS.—A correspondent writes, asking as to the action of the acetate of ammonia, formerly much more prescribed than it now is, in the form of the spirit of Mindererus, as an emmenagogue.

In reference to those remedies known by this title, it has been justly remarked by Siredey that there is no class of medicines enjoying the property of causing the menstrual flow, as there are medicines denominated purgatives which exert a direct and constant action upon the intestine.

Nevertheless there are medicines which, by a change in the condition of the blood, promote indirectly the menstrual discharge. Thus in an anæmic girl in whom all the functions of organic life languish, that of ovulation included, because of the blood impoverishment, every practitioner knows the value of suitable dietetic and hygienic means, of iron and of bitter tonics; with the restoration of the blood to its normal condition the life of the ovaries revives, and the periodic ripening and escape of an ovule determine coincident congestion of the uterus and hemorrhage from the ruptured capillaries of its mucous surface.

But, on the other hand, the amenorrhœa or the dysmenorrhœa may occur in a patient whose blood is directly opposite in character; she may be plethoric, and this plethora be the hinderance to the critical discharge. In reference to the treatment of this condition, we shall quote the words of the author referred to a moment ago, as most happily answering the interrogatory of our friend. After mentioning the fact that general depletion was held in much honor by the older physicians, and was by them so successfully employed in such cases, but to-day, though having so long reigned a sovereign, it is almost banished from therapeutics, he states that now we determine the greater fluidity of the blood by alteratives rather than by diminishing the general quantity. The effect of these agents is to lessen the plasticity of the blood, and consequently facilitate its escape through the capillaries of the uterine mucous membrane. Now among these agents the alkalies have the preference, and the acetate of ammonia is more generally employed than any other. Observation has demonstrated the excellence of this medicine as an emmenagogue. But its action, well recognized, has been misunderstood by physicians who have used it. The acetate of ammonia is indeed a diffusible stimulant of the first order; and it is to this excitant action that the salutary effects following its use in amenorrhœa and dysmenorrhea have been attributed. But if we substitute for the spirit of Mindererus, in the cases we are considering—plethoric patients—the bicarbonate of soda, the same results are obtained—viz., the menses are painless, flow freely, and (an important point to notice) the blood is less dark, paler, thinner, and is not in clots; in a word, there is a manifest modification in its *crassus.*

According to Siredey, the alkalies are the emmenagogues, *par excellence*, for plethoric females. His method of treatment is as follows: two or three days before the expected "period" the patient should take, each twenty-four hours, from four to five grammes of the bicarbonate of soda, or from four to ten grammes of the spirit of Mindererus, in an aromatic draught; continue for four or five days—that is, until the flow is completely established. As an adjuvant, two or three alkaline baths may be taken in the week preceding menstruation.

We believe the explanation of the emmenagogue power of acetate of ammonia here given is correct; and if true, we have a happy illustration of the progress of therapeutics; and thus every year medicine is more emancipated from the dominion of blind empiricism, and walks in the clear light of science.

A further inquiry as to what are *direct* emmenagogues we will probably consider in the next number of this journal.

Abdominal Corset.—The wood-cuts following represent the abdominal corset advised by Bernutz, in his and Goupil's joint work on diseases of women,* to be worn by patients after attacks of inflammation of the pelvic peritoneum. We have found, in suitable cases, this apparatus so useful, contributing so much to the comfort, and safety even, that we believe it will be doing the profession a service to give these illustrations, with the remarks of Bernutz upon its utility and his description of it. Those who examine carefully the second cut, and especially the corset itself, will be struck with the fact that the inferior border of the corset behind is higher than the superior border in front ; in other words, that the pressure of the apparatus is not directly *backward*, but *upward* and backward, thus lifting up and supporting the abdominal viscera, which otherwise descend upon the sensi-

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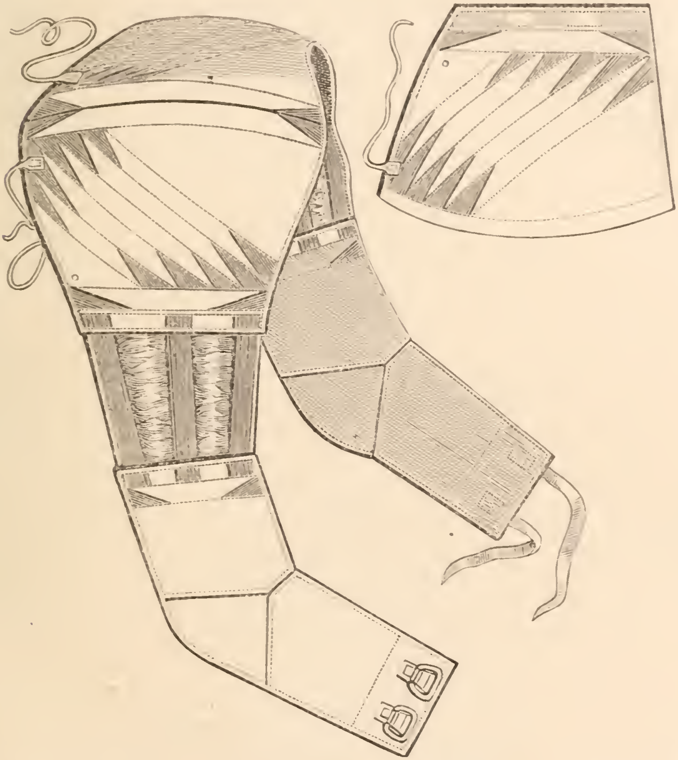
* Reviewed in American Journal of the Medical Sciences, July, 1867.



The right-hand figure represents half the middle portion of the corset. The left-hand figure represents the entire corset.

tive organs and tissues of the basin. This is one of its most important advantages, and renders it superior in our opinion to any similar apparatus we have ever seen. With these observations we give the text of Bernutz:

"The necessity of rest for the diseased organ is so great—an exception being made as to absolute continence, which should not be too prolonged—that I think it prudent, if not indispensable, in order to secure the immobility of the organs in walking or other exertion, to have women who have pelvi-peritonitis wear, even some time after their cure, a hypogastric girdle—a sort of corset for the lower part of the abdomen, made according to the foregoing model.

"This corset ought to be made of strong drilling, half cotton, half thread, having in its center two whalebones to correspond with the hypogastric curvature; whalebones also upon the sides, in order to compress the iliac fossæ; laterally, firm elastics, such as are used for garters, in order to permit readily the movements of the patient. It is fastened behind by straps, and by buckles without tongues; it is kept down by attaching to it, on either side, a piece of gum-elastic tubing, through which a strong tape passes, encircling the upper part of the thigh, and then tied to the corset some three inches further from the center than the fixed point of attachment.

"I prefer this to any other because it can be more readily worn; it keeps its position well; and is less repugnant to women, who would object to the surgical apparatus of an instrument-maker, but readily accept the corset of a seamstress. Just as the male wears a suspensory bandage after an attack of orchitis, so we advise this for a female after an attack of pelvi-peritonitis; and it should be worn as long as exercise causes a return of pelvic pains."

THE AMERICAN PRACTITIONER.

AUGUST, 1870.

> Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

ON CHOLERA INFANTUM.

BY B. M. WIBLE, M. D.

Cholera infantum, or summer-complaint, is produced by a conjunction of several causes, of which age, summer heat, and atmospheric agencies are the chief. The period of dentition is the age in which it most occurs. Certain evolutions then take place, especially the development of the intestinal glands, as well as of the teeth, which render this period particularly prone to intestinal disease.

In proportion to the heat of summer is the rate of the disease. It is essentially a disease of hot weather. Multiplied observation attests that the frequency of attack increases as the weather becomes hot, and diminishes as the temperature abates. High temperature is the chief cause; but no doubt malaria and ill-ventilated apartments contribute to the intensity of the disease. Indigestion, induced by the foregoing causes, and by the use of improper food, tends to impair the whole alimentary tract, and gives rise to the characteristic symptoms of the disease—viz., vomiting, diarrhea, intestinal inflammation, fever, and lesions of secretion.

The causes specified undoubtedly produce a profound impression on the delicate nervous organization of the child. Without going into the complexities of the nervous phenomena of the disease, I will simply state that summer heat alone, without the other sources of irritation to which the patient is subject, is sufficient to induce a pathological state of the nervous system; and, if we regard the teachings of physiologists, that state is one of exhaustion, especially of the ganglionic or nutritive nervous system. This exhaustion necessarily diminishes the control of these nerves over the circulatory system, for it is the chief function of the organic or nutritive nervous system to regulate the supply of blood to the different organs. Those familiar with the doctrines concerning the vasomotor nervous system will readily comprehend how exhaustion or paralysis of that system will be followed by dilatation of the small blood-vessels, and then by congestion, transudation, and inflammation.

If to the influences of summer heat we add those of malarial poisoning, and the irritation of dentition and of indigestion, we have causes enough to account for the frequency as well as the fatality of cholera infantum. The disorders of the stomach and bowels, which are commonly recognized under this term, vary in degree and extent. Vomiting and frequent liquid purgings are symptoms of the most serious nature. Oftener, however, there is simply diarrhea, with more or less febrile disturbance. The discharges are generally offensive from the onset; and if the looseness continues they assume a green, spinach-like appearance, and almost always contain particles of food, especially undigested milk. A certain pallor at the angles of the mouth is an almost constant symptom. The pulse has increased frequency, and the temperature is often exalted to one hundred degrees or over. The child is irritable.

When the disease assumes a protracted form the stools are often streaked with blood. Great emaciation marks this form of the disease. When the case terminates fatally it is either from exhaustion or from spurious hydrocephalus. Post-mortem examinations have revealed but little to guide the physician. The intestinal lesions are not marked; the mucous membrane is redder than natural; and there are dark spots, consisting of enlarged orifices of the solitary glands. Sometimes slight ulcerated patches are found throughout the intestinal tract. But it is to the proper management of this frequent and fatal affection that I wish especially to call attention; and, first, as to *prophylactics*. The greatest attention should be given to the general health of the child; its food should be of the proper quality. If the mother's milk is found to pass undigested, the cause of this should, if possible, be ascertained and corrected. If the mother, or nurse, becomes pregnant, or menstruates, or falls into bad health, the milk is liable to disagree; and if this is found to disturb the health of the child, it should be weaned and fed upon rich cow's milk, diluted with water and lime-water. If the child has pretty well advanced in teething, bread with gravy and broth may be allowed in addition to the milk. The child should be bathed daily. Its apartments should be clean, thoroughly ventilated, quiet, and so arranged as to be darkened, to insure undisturbed sleep. The clothing should be sufficient to protect the child in cool weather, but in very warm weather a single slip of some light goods is all that should be allowed. The custom of bundling up a child with flannel, and otherwise warm and tight clothing, can not be too much reprehended. Its exercise should be unrestrained in an airy nursery or in the shade; and it is better in the hot sunshine than in a close sultry room. If vomiting should be the prominent symptom, a grain or two of bicarbonate of potassa, dissolved in a drachm of sweetened mint-water, ought to be given every hour or half-hour. If the vomiting should persist, the bowels should be moved by three or four grains of calomel, followed in six or eight hours by warm water enamata. The purgative selected is recommended, not that the specific action of that medicine is desired, but because it is best retained by the stomach, and answers the purpose as an evacuant of the bowels. If vomiting and purging should be prominent symptoms, then the dose of potash and mint-water, with a drop or less of laudanum added, must be given after each excessive act of vomiting or purging. The formula which I usually prescribe is as follows:

℞.—Tinct. opii, gtt. xvj ; potas. bicarb., ʒss ; syrup simplicis, ʒiij ; aqua menth. pip., ʒx. M.

Of this a tea-spoonful is to be administered after each act of vomiting or purging. This prescription has answered my highest expectations; but some successful physicians insist that creosote is a valuable addition to it, and it is possible that the creosote may have the effect more promptly to restrain the vomiting.

When the vomiting and purging are excessive, so as to endanger exhaustion or collapse, I know of no astringent so well suited as grain doses of acetate of lead repeated every hour until these symptoms are arrested. If tannin could be deprived of its bitterness and retained by the stomach, it perhaps would be a more desirable astringent than the lead. Until active vomiting and purging cease the child should be restricted to barley-water.

More commonly the disease assumes a less active character; the vomiting or purging is not so incessant as to threaten immediate exhaustion. Here it is manifestly improper to attempt to arrest the discharges until they are changed in character, and cease to contain undigested food and to be offensive; otherwise the irritation of the alimentary tube is increased and all the symptoms aggravated. Hence it is often necessary in this condition to give an occasional laxative. The following I have found from ample experience to answer the purpose:

℞.—Tinct. Rhei, ʒiij; bicarb. potassa; magnesia carb., āā grs. xx; syr. simpl.; aqua menth. pip., āā ℥j. M. S. Dose, a teaspoonful repeated every eight hours.

At the same time that this prescription is being used, if there should be pain in the bowels, or the discharges become large and exhaustive, a dose of one of the opiate prescriptions above mentioned should be given from time to time, as required.

After the alimentary canal has become rid of its irritating contents, then the only medicine usually required will be a dose of the opiate prescription, repeated after each excessive disturbance of the bowels. If dysenteric symptoms come on, opiates by the rectum are best. Three or four drops of tincture of opium in half an ounce of starch-water may be administered with the syringe from time to time. It should be borne in mind that it is just as important to use opiates in the intestinal diseases of children as it is in those of the adult; the injury from proper doses of them results only when they prevent the discharge of irritating material from the bowels.

The best febrifuge is the tepid bath, and the free use of cool and cold drinks. The bath may be repeated every two or three hours when there is much febrile excitement; and the drinks as often as the child will receive them. During the treatment of the active stages the child should be kept free from all excitement. It should lie on a pallet, and not be heated, and jostled in the nurse's arms. Its apartments should be darkened, airy, and cool; and company prohibited, save the nurse and the physician. The excitement produced by flies, musquitoes, and other insects is most pernicious, and sufficient to determine a fatal result. The food should consist of barley-water, hot-water tea, lime-water, and milk, or a very moderate allowance of the mother's milk. All food which is not readily digested should be prohibited. By pursuing the plan indicated the disease will be promptly controlled; but where proper medication and hygienic management have been neglected in the early stages, the disease may assume a protracted form. Then the nutrition of the patient becomes the all-important consideration; for if this be neglected or improperly conducted the child will die from exhaustion. In this stage then opiates should be administered per rectum, reserving the stomach for nutriment. It is important here, as in all stages of the disease, to keep the bowels as tranquil as possible, and nothing answers so well as opiates. The mild vegetable astringents are of service, and of these the geranium maculatum is among the best. A decoction of the root, made pleasantly sweet, is an eligible form for its administration; it improves the digestive powers and restrains the discharges. The sulphate of quinine is required, especially if exacerbations of fever periodically recur. It is best administered in simple syrup, in from one to two grains for a dose, repeated every three or four hours, until ten grains have been administered.

As has been stated, the diet is all-important. Of all nutrients I have found veal broth to be the best; this, with panada and milk, constitutes a good food. Very debilitated children will often take readily raw meat, for a time, with benefit. This is a Russian remedy for the diarrhea of teething children, and, in some cases I have seen, it seems to answer a good purpose.

In very protracted cases of the disease stimulants may become necessary. Tincture of cinnamon, made with French brandy, I have known to be used in doses of ten drops, every hour or two, with excellent effect. The tan-bath, made by boiling a pound of white or chestnut-oak bark in water, and the decoction thus made to be added to sufficient water to form a bath, experience has shown to be valuable in cases of great debility, with emaciation. I have known recovery to follow this bath in some extreme cases.

I have not recommended the chalk mixtures, the blue powder, and alterative doses of calomel, formerly so much used. I conceive that the mechanical action of the chalk must be unfriendly to the bowels; besides, all the benefit that can possibly be derived from it is obtained by the use of the perfectly soluble bicarbonate of potash. Without attempting to show the reasons why mercurials are not useful, experience alone has taught me that they are not only useless, but often manifestly pernicious. In cases where there is prolonged deficiency of secretion, when the discharges are ash-colored, and the usual quieting remedies fail, very minute doses of calomel may be tried, and I think in some instances they are beneficial; but, on the other hand, I have known them to be used so as manifestly to aggravate intestinal disease. Since I have ceased to rely on mercurials, and have indeed almost entirely excluded them, the treatment has been more satisfactory.

The details of the treatment above indicated must, of course, be left to the judgment of the medical attendant, who, in a disease which so often runs a rapidly fatal course, should frequently see the little patient.

LOUISVILLE, KY.

THREE CASES OF EMPYEMA TREATED BY THORACENTESIS.

BY C. D. TODD, M. D.

The following cases of empyema occurred in the practice of Dr. Hugh Rodman, under my own observation, while I was his private pupil, and are reported as illustrations of the beneficial and curative effects of paracentesis thoracis in the treatment of pleuritic effusion.

Case I. A stout man, aged forty-five, was attacked with what was thought at the time to be the passage of gallstones. The pain was somewhat paroxysmal in character, and occupied not only the hepatic region, but extended around the lower part of the chest; pulse feeble; surface pale and cool; chest movements imperfect. In a few hours the heart's action came up; the violence of the pain subsided; the general distress disappeared; though the patient complained of some uneasiness, on deep pressure and percussion, over the lower portion of the left lung. The case was lost sight of for several months. When seen again the patient represented that his breathing had been slightly hurried and embarrassed, his pulse quickened, and his general health steadily declining from the date of his first seizure. He had suffered from pain in his left side, and had a slight cough. A superficial examination at once revealed the true condition of things. Flatness on percussion, loss of expansion of the left side, absence of all respiratory sounds over the region of the dullness, etc., left no doubt as to the existence of empyema. He had about this time well-marked hectic. His cough became frequent and violent; on several occasions he expectorated considerable quantities of matter suddenly after a violent paroxysm of coughing. Some relief would ensue at such times; but the hectic continued, the emaciation progressed, and general prostration soon became decided. Thoracentesis was practiced; a large quantity of pus was drawn away; and the operation repeated, as occasion required, with the most striking relief. Under tonics and liberal diet the patient began at once to improve, and soon gained his flesh and strength, and has continued well during a period now of twelve years.

Case II. W. L., a boy, twelve years old, was taken with exceedingly severe rigors, which lasted two days. He was seen the day succeeding his attack, when the rigors still continued. He was ordered stimulating drinks, dry heat to the surface of the body, etc., under which the rigors passed slowly away.

Dr. R. was in doubt as to the exact nature of the seizure; and, while he suspected that suppurative disease was going on somewhere, it was not until the lapse of several days that the general and local symptoms pointed to the actual seat of the affection. Throughout this period reaction was with difficulty maintained, and at best was not thorough. Eventually, however, the rigors subsided altogether. The respiration became frequent and labored, while dullness on percussion over the lower half of the left lung, with the other signs of pleuritic accumulation, indicated the true character of the attack. The treatment usual in such cases was adopted, and pushed without avail. The line of the dullness gradually rose; the intercostal spaces begun to widen; the dullness on percussion became actual flatness; the pulse increased in frequency and decreased in volume. The patient was fast losing ground. Paracentesis of the chest was performed, and about three pints of pus withdrawn. The urgency of the symptoms abated for the time, but presently returned. The operation was repeated; less pus followed than at first, but the relief was decided. The puncture was reöpened several times, and considerable quantities of pus were withdrawn; but at the end of three weeks the opening was finally closed, and the patient made a speedy and perfect recovery. It is now three years since he was sick, and he gives promise of growing to be a vigorous man.

Case III. A farmer, aged forty, had been seen occasionally by a neighboring physician, and treated for chest trouble, without benefit, during several months. The patient was able much of the time to walk about. He came to Dr. R.'s office when his condition was as follows: Face purplish; expression anxious; breathing as labored as that in asthma; left half of the chest enlarged; all the physical signs of empyema. An erysipelatous blush, with considerable œdema, over the lower part of the side, indicated that nature was preparing to empty the collection. The next day thoracentesis yielded five quarts of a rather thin pus. Within the succeeding four months the operation was repeated more than twenty times—the original puncture sometimes serving to admit the canula—a new opening being sometimes necessary. I will not undertake to say what was the total amount of pus discharged at these repeated sittings, but it was very great; and although no subsequent puncture yielded as much as the first, the quantity continued considerable for some weeks, and diminished very gradually under the use of warm-water injections into the cavity, followed by injections containing the iodide of potassium and chlorate of potash. The patient made a satisfactory recovery.

EMINENCE, KY.

[The above cases are certainly most valuable, as illustrative of the benefit to be derived from the performance of thoracentesis in certain cases of pleuritic effusion. The operation of thoracentesis is being given a wide range at the present day. Instead of being limited, as formerly, to chronic cases which have baffled medicinal treatment, it is now applied very frequently to acute pleuritis, with effusion, when death is threatened by suffocation, and after a reasonable time has been allowed for the action of medicines. The French authorities are enthusiastic in their laudations of it—some of them resorting to it immediately on the occurrence of effusion.

As a rule, acute pleurisy, with effusion occurring in healthy subjects, has an intrinsic tendency to recovery, irrespective of the treatment that may be employed. As an exception to this rule, death sometimes becomes imminent from a rapid and copious effusion. It would be unreasonable, not to say dangerous, to temporize here. Paracentesis is obviously indicated. The cases which become chronic, or end in the effusion of pus into the cavity of the pleura, are very generally regarded as having a tendency to chronicity from the beginning. It can not be denied also that chronic pleuritic effusions are often the result of temporizing and delaying the performance of paracentesis in the acute stage. The arguments in favor of its performance are its simplicity, freedom from danger, the immediate temporary and often permanent relief which it affords, the saving of life, and the prevention of the development of chronic pleurisy from acute. All this is founded on fact and sustained by facts. The arguments brought forward in opposition to it are the danger from the introduction of air into the cavity of the pleura, and the formation of a pyogenic membrane and putrescence. These are not sustained by fact—only by theory. Air need be only transiently applied, it being an easy matter to withdraw it. If allowed to remain, it has not been proven that it exerts any deleterious agency, while it has been proven that it can be absorbed. It is very questionable whether suppuration or putrescence can be established in a serous membrane previously healthy. It is certainly more reasonable to suppose that the membrane was originally, or prior to the performance of the operation, a pyogenic membrane, or in a putrescent state, or liable to become either from the general condition of the patient.

A lung which has been collapsed and forced against the spinal column by the pressure of a pleuritic effusion retains its resiliency, and may expand again on the removal of the fluid. This result may be hoped for if no adhesions exist. Adhesions are formed when the lung has been long collapsed. The importance therefore of an early operation is manifest.

The dyspnœa and other symptoms of defective hæmatosis, when they exist in cases of large pleuritic effusion, are not so much the result of pressure upon the lung already collapsed as of pressure through the mediastinum upon the opposite healthy lung. The relief obtained by paracentesis in these cases is attributable to this, and for this the operation is indicated.

There is no absolute rule which can guide us in the selection of cases suitable to operation. In certain cases of acute pleurisy, as before remarked, paracentesis is absolutely demanded as a means of saving life; in others it is optional with the surgeon whether or not to operate. Certain cases of chronic pleurisy will gradually yield to sorbefacients, internally and externally used, together with measures calculated to improve the tone of the patient; such are those in which the physical signs clearly indicate that the lung is still performing its function, the cavity of the pleura not being entirely filled by fluid. Here there is no necessity for haste, but some time may be given for the action of the absorbents. And in these cases even the question has been pertinently asked, Why subject the patient to the uncertain action of medicines, and slow processes of nature, when the fluid can be rapidly removed by a trivial and safe operation? In other instances physical diagnosis reveals the fact that the lung is collapsed against the spinal column, the cavity of the pleura being entirely full. In these cases temporizing is useless, delay is dangerous, and paracentesis is the proper procedure.

As regards the site of the operation, when we have the selection, opinions differ. Malgaigne's advice to insert the trochar five fingers' breadth below, and on a level with the lower angle of the scapula, has been most usually followed. Everything considered, however, Bowditch's rule is, we think, the best that can be adopted; viz., to operate two or three inches above the spot where the respiratory murmur is heard on the healthy side.

The subcutaneous aspirator, figured elsewhere, affords an easy, simple, and perfectly safe means of performing thoracentesis.—C. R.]

ON THE TREATMENT OF CHOLERA INFANTUM.

BY LUNSFORD P. YANDELL, M. D.

Cholera infantum, the "summer complaint" of children, is associated with teething in the popular mind, occurring as it does most generally during the age of early dentition. But the fact that the disease is apt to attend this process only in hot weather ought to have convinced the people, and the medical men who share with them in the popular belief, that there is no necessary connection between teething and disorder of the bowels. The irruption of the teeth is doubtless often retarded by disease, and all diseases of childhood may be aggravated by irritation of the gums, and these facts are to be borne in mind in practice; but I think we are quite safe in rejecting dentition as a cause of cholera infantum.

Of the admitted agency of heat in developing the complaint, we have had in Louisville this season a striking illustration. As a rule, we have no cholera infantum in this city until summer. But the month of May last was characterized by very unusual heat; for days together, about the middle of the month, the thermometer rose in the shade to eighty-five and ninety degrees, and as the natural result of this summer heat the summer complaint made its appearance, and several deaths from it are recorded in the mortuary report for May. The same fact was still more forcibly displayed in this city two summers ago. June, 1868, was a temperate month. July was a month of intense heat; the thermometer rose every day for a fortnight, about the middle of the month, as high as ninety-three or ninety-five degrees, and even a higher temperature was reported. The nights were most oppressive. On the 15th, three horses fell down in the street cars, overpowered, and died from the effects of the heat. In the week ending on the 19th of the month eleven deaths from sun-stroke in the city were recorded. The first deaths from cholera infantum that year appear in the reports of the last weeks in June; during the last week four deaths were reported. In the first week of July the deaths from it rose to twenty; in the second, they were twenty-four; in the third, twenty-eight; and in the fourth, twenty-three. About the close of the month the intense heat declined, and with it cholera infantum abated in severity. Against the mortality of July, the highest rates in August from the disease were seven the first week and eleven the fourth.

These facts are instructive, but there are difficulties in the way of accepting heat as the sole cause of the summer complaint of children. It is admitted, for example, that cholera infantum is on the decline in our country. It is certainly not so formidable a disease as it was a generation ago. I am able to speak with confidence on this point, having been a careful observer of the disease for more than that period. But the heat of our summers has not declined with it. Our climate as respects temperature remains the same. Cholera infantum is gradually giving way with our remittent fevers, though not in the same ratio with those endemics, which were once expected with every return of autumn, but now are rarely met with. At the same time we are not prepared to affirm that the cause of these complaints is the same. Malarial fevers and cholera infantum bear no strong resemblance to each other, though they exist in the same localities and prevail at the same season. Cholera infantum, as a rule, is not marked by periodicity, and is not arrested by the salts of quinine. If a malarial disease, we have to admit that it fails in these two important requirements.

Foremost among the remedies in cholera infantum I do not hesitate to place calomel. I state it as the result of my experience that this is the medicine first called for, and most loudly called for, in the management of the disease. Given at once, so soon as the vomiting and diarrhea set in, or when the bowels become disordered, as is often the case, without any gastric trouble, it tends more than any other remedy that I have yet tried to restore the alimentary canal to a healthy condition. The phrase in use by the profession a few years ago was "restore healthy secretion." We supposed then we were promoting biliary secretion by the administration of calomel; and in this way we accounted for the salutary operation of our medicine. It may be that our philosophy was all baseless; and that so far from stimulating the liver to the effusion of more bile by our mercurials, we were actually diminishing its secretion. But the fact of a curative effect from the remedy remains. We, the adherents of this old practice, make our appeal to experience, and according to that nothing so well as calomel restores the healthy action of the stomach and bowels. I give the child, so soon as I am called to it, a grain, half a grain, or two or three grains of calomel, according to age and circumstances, and generally repeat the dose only once in twenty-four hours; but in urgent cases, when the discharges are profuse and exhausting, it should be repeated twice a day, or even once every four hours. I never feel safe, in cases of this character, until the discharges have lost their watery consistency, and assumed the appearance well known as resulting from the action of calomel. The medicine is most conveniently administered dry on the tongue of the child; for, being tasteless, given uncombined, it is swallowed without repugnance. I can not say that I attach much importance to the dose of calomel. Many years ago I prescribed it and took it in much larger quantities than I employ now, and I am not able to recall the case of a single child in which I believed that mischief was done by this profuse employment of it. At the same time I am free to express my belief that such dosing was, to say the least, superfluous. There was no need for so much of the remedy; beyond a certain amount it is not absorbed, or even dissolved in the primæ viæ, and consequently is inert. But in urgent cases, from old habit it may be, I still incline to decided doses in this complaint, and should much prefer two or three grains to a dose of half a grain for an infant eighteen months or a year old.

In nearly all cases opiates are indispensable; they are demanded to restrain the purging and relieve griping until the calomel has had time to effect a change in the secretions, whether of the bile or the fluids effused by the alimentary canal. Laudanum in suitable doses is perhaps the most eligible preparation. The salts of morphia are too energetic for safe employment in the cases of children. Paregoric is rendered more distasteful than laudanum by its combinations, but one or the other of these may be given, and repeated once in four hours, according to the requirements of the case. Prepared chalk as an absorbent is not objectionable; but the carminatives and gum arabic in the usual chalk mixture are distasteful, and therefore of doubtful propriety. When the stomach is irritable, and especially in cases in which the alvine discharges are very frequent and attended by much griping, it is better to administer the opiate in the shape of an enema. The mother does this easily with a small syringe, while the child sleeps, causing the injection to be retained by gentle pressure with a napkin, for a short time, against the lower bowel.

Creosote, on theory, ought to be a valuable remedy in this affection, counteracting, as it does, fermentation in the alimentary mass; and in practice it has been shown to possess decided therapeutic powers. I have seen it promptly arrest obstinate vomiting, and it is an agent of undoubted efficacy in diarrhea. I have long ceased to use the ordinary astringents, and only give some of the salts of iron, with a view to their tonic effects, in cases which have become chronic. Where the discharges are profuse and wasting, threatening the little patient with collapse, besides calomel and opium, sinapisms and hot applications to the extremities are necessary, with alcoholic stimulants internally. The danger is over when consistent evacuations from the bowels have been secured by calomel. During this stage of danger, as in fact whenever the patient is passing matters freely from the bowels, or is feverish, thirst is a most troublesome symptom, and the profession is unfortunately not of one mind as to the propriety of indulging it. To me nothing is clearer; I have no more decided convictions in medicine than that the cravings of the patient, under such circumstances, ought to be gratified. I direct iced water to be given freely—*ad libitum*, in fact—to these patients. It may be thrown up in a little while, but it never aggravates the vomiting, and by mere conduction it abates the heat of the body, and supplies to some extent the fluids exuded from the system. A case which occurred in my practice, many years ago, has left upon my mind indelible impressions of the horrors of the opposite practice. A bright little boy was under my care for a bowel complaint of a dysenteric character. The tormina was very great, and his thirst was tormenting. Under a theory by which I was then ruled I kept him on warm drinks. He became importunate for something cold. "Can't you let me have a *little* ice?" he would say—"a speck so small that you could hardly see it?" I adhered to my theory in spite of his cries, and refused him; but I have never thought of his case since without a pang. To render it more impressive to me, his mother was taken ill with the same disease a few days after he died, and was growing daily worse on a similar course of treatment; but began to mend, and finally recovered, when this was changed for iced effervescing drinks, taken every half hour.

A few days since I saw a case of disordered stomach and bowels, attended by inordinate thirst, in which I pursued the opposite course now recommended. A child eighteen months old was seized with cholera morbus, on Washington Street in this city, on the 2d of July. The vomiting and purging were excessive, and collapse seemed impending. A physician of the neighborhood was called in, who administered opiates and cordials, and made warm applications externally, to restore the circulation. I saw the patient at eleven o'clock in the evening, when reaction had come on, and his bowels were quiet. Calomel was ordered, with the opiates if necessary, to restrain diarrhea. Next morning there was still watery purging, and his cries were incessant for water. He was given a glassful of iced water at a single draught, and the calomel was repeated. In a little while he was asleep; but not long after I left him I was told he woke up and again clamored for water. His parents gave it him as I had directed, and in the afternoon they showed me a tin bucket, holding a quart, which, they assured me, he had drunk during the day. The discharges had been copious all day, but he fell asleep soon again after drinking the iced water, and next morning was relieved, the calomel in the mean time having acted.

It would be an inexcusable waste of time to dwell upon this practice, and illustrate it by such cases as these, if physicians were universally agreed as to its safety. But I know from much observation that such is not the fact. I know that a very large number of practitioners indulge their patients with summer-complaint sparingly in cold water. I am sure that great suffering results from this restriction, and I wish to testify as emphatically as I can in favor of the most liberal indulgence. I wish to put it on record as the result of my experience in this disease that the free use of cold water is not only safe, but eminently curative. It is not only free from all evil effects—it powerfully promotes the restorative efforts of nature. Cold water is to be ranked among the cardinal remedies in the disease; and when fever is present the external use of water is of the greatest advantage. Prompt and most manifest relief from all the symptoms in these cases is afforded by affusions of tepid water, or immersing the child in a tepid bath. Cold water produces a painful shock. A convenient and efficient practice is to saturate the child's gown with water of the temperature of the surrounding air, which abstracts constantly by its evaporation from the heat of the body. Merely sponging the surface is of little avail. The water to be evaporated is not sufficient.

In cases of obstinate vomiting it will often be found that this indulgence in cold water is of all things the most tranquilizing to the stomach. Ice is advantageously given, scraped or pounded, if the child will take it. Creosote will sometimes allay vomiting. Pepsin too has lately come into use as a remedy for this symptom. Calomel seldom fails to relieve it by promoting healthy secretion, but its action requires more time.

There are exceptional cases of cholera infantum in which periodicity is a well-pronounced feature; we are left in no doubt as to the malarious nature of the case; and when this turns out, I need hardly say, quinine is the remedy. Many years ago I called, through the Western Journal of Medicine, the attention of the profession to this occasional feature in the disease, and doubtless practitioners every year meet with these miasmatic cases. When it becomes necessary, as under these circumstances, to give quinine to a child, the preferable mode of administration is by injection into the bowel. This method is the more important in this complaint on account of the extreme irritability of the stomach. The enema, containing two or three grains of sulphate of quinine, with a few drops of laudanum, may be repeated two or three times a day. In cases of this type the action of the remedy is striking.

The diet in cholera infantum is a matter of quite as much consideration as any other part of the treatment, and it is here perhaps more than in any other direction that we have made substantial improvements upon the practice of a former period. When rigid dieting was the method with disease, or the habit was to restrict the subjects of this complaint to farinaceous articles of food—which was but a milder mode of starvation—it is impossible to doubt that multitudes of children died of inanition. Fed week after week and month after month upon substances incapable of renovating the blood, it was not in the nature of things that they could recover. We have been taught by science as well as observation a more rational practice. The aim of the practitioner now is to sustain his patient during the prolonged contest, not so much by stimulants and tonics as by food fitted to renew the decaying tissues and afford the materials for growth. The child in this disease at first has but little appetite for nourishment. Its chief craving is for diluents. It sucks greedily and often, not because it is hungry, but because it wants water; and in this way it takes much more food into its stomach than it can digest. Water should be given to it often, and always before it is put to the breast, by which means this over-repletion will be avoided.

But the acute stage of the disease having passed by, and especially after relapses, the system being worn down by wasting discharges, the great want of the economy is the material wherewith to build up. The child then requires to be nourished. For an infant nothing is so suitable as its mother's milk; and next to this is the milk of the cow, not diluted, but in its natural richness, and as fresh as possible. But at a later age the child is not satisfied with a milk diet, and the problem is how to meet the wants of its system. Shall we prescribe rules for it, saying what it may eat, and what is not wholesome? Such has been the practice of the profession. Science has attempted to regulate the appetite of the patient. My conviction is that the appetite is a far more reliable guide; and instead of hurrying the little patient away from the family meal, as has been our usage, to keep everything deemed noxious out of its sight, the truer course, I am persuaded, is to take it to the table, that it may indicate by sign or gesture, if not able to tell in words, what it wants. The article clamored for may seem most unsuitable, but nature may be trusted in the case. The invalid will prove to know better than his medical adviser what is adapted to his digestive requirements. He will thrive upon his most unorthodox diet. Ham, middling, butter, fruits, even young corn on the ear, may be safely conceded to a genuine appetite. If it is decided and persistent, what it craves will almost always agree with the patient. Instances in great numbers could be given of children in this complaint restored to health by every one of these articles and others as unpromising. The solid animal food must of course be reduced to a pulpy mass by scraping, rasping, or cutting, and the husks of the corn must be slit with a knife, to bring it under the action of the gastric juice; but, properly prepared for a patient wanting the organs of mastication, he may with safety be left to choose among the various dishes set before him. In food as in drink, I can not help believing, the instincts of the animal body, more especially when it is laboring under disease, are more trustworthy guides than all our science concerning diet.

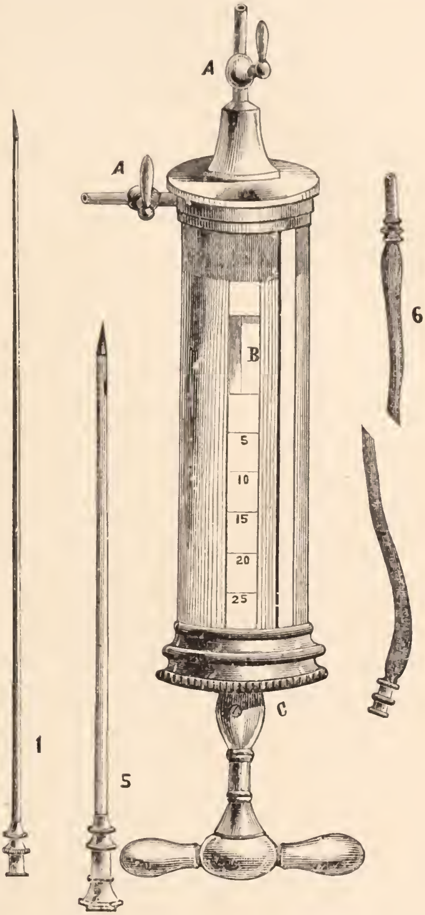
As combining nourishment with diluents in cases of great prostration, some practitioners of this city speak in very favorable terms of an albuminous drink, made by dissolving the whites of three or four eggs in a pint of iced water, to which a tea-spoonful of bicarbonate of soda has been added. Of this the child is permitted to drink freely. Prof. Bayless, who suggested this beverage, thinks that by means of it he has rescued patients from imminent danger of collapse, the albumen passing readily into the circulation, and replacing that element of the blood exuded in the watery evacuations. It is worthy of trial in those alarming cases in which the patient is brought in a few hours by the profuse discharges to the brink of the grave.

LOUISVILLE, KY.

THE SUBCUTANEOUS PNEUMATIC ASPIRATOR.

BY J. R. WEIST, M. D.

Dr. Hibberd, who recently returned from Europe, brought with him from Paris and kindly placed at my disposal the *subcutaneous aspirator*, an instrument which Dr. Dieulafoy claims to have invented, and which, at any rate, he has recently patented. Although this syringe has already been described in several American journals of medicine, I believe it of sufficient interest to present to the readers of the American Practitioner a description and drawing of the instrument, together with a brief mention of its uses. The instrument consists, as will be observed, of a glass exhausting-syringe, capable of being attached to a fine tubular exploring needle, or to a canula of larger size. *A A* are stop-cocks; *B* is a notch in the piston-rod for securing the piston at *C* when the cylinder is exhausted. The piston-rod is graduated in order to show the amount of fluid in the cylinder. The hollow needle (1) and the trocar (5) represent one of the sizes of each, as furnished with the instrument. The needle may be connected directly with the syringe, or by the intervention of the elastic tube and fittings (6). In using the instrument, the stop-cocks *A A* are closed, the syringe is exhausted, and the piston secured by a half-turn, which engages the notch *B* in a catch at *C*. One of the needles is introduced at any point beneath which the presence of liquid is suspected, and is carried to a sufficient depth to prevent air from entering at its point; the exhausted syringe is then connected with the needle, and the cock between the needle and the vacuum opened. The needle is then carried onward, and as soon as its point reaches fluid this fluid rushes into the vacuum. By closing the open cock and opening the lateral one the fluid can be driven out into a vessel by depressing the piston. By drawing up the piston when both cocks are closed the vacuum is restored, to be again filled with fluid as soon as communication is restored, and as long as there is any to flow. By reversing the action of the cocks the syringe may be filled with any fluid, and its contents injected into the cavity which has been emptied. The syringe is made in two sizes, the larger holding a little less than two ounces; four needles of different lengths and sizes (the smallest being as delicate as a fine acupuncture needle), three different sized trocars, and the elastic tube fittings. (Cost in Paris twenty dollars gold, and I believe not yet made in this country.)



Before passing to the uses of the instrument I will suggest that it would be an advantage to have an additional fitting, furnished with a stop-cock, to be placed between the needle and the syringe. As sometimes in practice it is desirable to remove the syringe, and to leave the needle or canula in position, with the fitting recommended this could be done, and the admission of air altogether prevented. In practice the instrument will be found of the greatest service, both as a means of diagnosis and of treatment.

I can not better illustrate its value for these purposes than the inventor has done in a note presented to the Academy of Medicine, in November, 1869. He says:*

"It is well known what difficulty sometimes accompanies the recognition of collections of pus concealed under the muscles and aponeurosis of the gluteal and cervical regions, the iliac fossæ, etc., or when situated in the depths of such organs as the liver and kidney. The observer remains undecided then as to the presence or nature of a fluid which does not disclose itself for some time either by a marked tumefaction or by fluctuation. True, the febrile condition and the pain are indications of value in diagnosis, but how may we arrive at a certainty as to the existence and seat of the collection? How may we know whether surgical intervention be useful, urgent, or injurious? To answer these questions, which so often present themselves in practice, the ordinary exploratory trocar has been devised. But this instrument, far from fulfilling its promises, seems to have failed in its design. It corresponds in no way to the idea which gave it birth; it carries its own condemnation with it, for it is at once both too large and too small. Its caliber is voluminous. Compared with the fine needles of subcutaneous injection, it may be seen how little it merits the name *capillary* which has been given it; and yet, in spite of its relatively large diameter, it does not permit the passage of the fluid often enough, either because of its inspissitude or the occlusion of the caliber of the tube. [The long slender needles of the aspirator remedy these inconveniences because of their small size.] The most delicate organs may be traversed without greater injury than from acupuncture needles, whose perfect innocuousness is well known. This canula trocar, provided with two slits at its extremity, is introduced in search of the supposed fluid. Having been filled, it is easily emptied by pressure on the piston, and at once a full assurance is given of the presence, seat, and nature of the collection. The seat is determined by the direction and depth given to the canula; then a microscopic examination reveals its true nature. This means of exploration is equally applicable to cysts, hematomata, and collections of serum, pus, or urine.

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* Professor Whittaker's translation from *Bulletin Generale de Therapeutique*, November 15, 1869, in Cincinnati Lancet and Observer, January, 1870.

"So much in a diagnostic point of view; a word now of its application in treatment. By the aid of this instrument articular effusions may be emptied without fear of the introduction of a single bubble of air, and without the danger of traumatism from a wound so minute. Might not an analogous treatment be applicable to the effusion of pericarditis? Experience will prove if this be not preferable to the difficult and dangerous operation of paracentesis of the cardiac envelopes. I might also mention the withdrawal of urine in cases of retention, the extraction of liquid in circumscribed pleuretis, abscesses, etc. Should the injection of any liquid, as tinct. iodine or alcohol, be thought necessary, it may be practiced at the same time without displacing the instrument. It is destined also to remove gases which accumulate in such large quantities in intestinal occlusions, and which may prove an obstacle to the reduction of certain hernias. Finally, the same procedure may be of service in local depletion, the needle being plunged directly into a vein or artery, to drain and disgorge hyperæmic parts, as strangulated and turgescent hemorrhoids."

For all the purposes indicated above by the inventor the aspirator has been tried and found to be of the greatest service. It has been used with advantage in the diagnosis of ovarian tumors, for the evacuation of the fluid in hydrocephalus, etc. The intelligent practitioner will at once see the capabilities of the instrument, and the valuable aid it will afford in practice. My personal experience with it has been small; yet, so far as it has gone, it leads me to conclude that the instrument deserves the highest encomiums.

It may be of some interest to state that priority of invention is now claimed by Dr. Protheroe Smith, of London. In an article on the subject in the Lancet of the 11th of June, Dr. S. states that he had such an instrument made in February, 1867, by Mayer and Mettzer, of London, of which he gives a wood-cut; that he exhibited it in the following August, at the annual meeting of the British Medical Association in Dublin, and also at the meetings of the association at Oxford, in 1868, and at Leeds in 1869; that he showed it to Robert, the maker of Dieulafoy's syringe, in Paris, December, 1868;

that Robert took a sketch of it, and expressed himself much pleased with it, etc.

The instruments are certainly not unlike. The additions claimed by Dr. Dieulafoy are the stop-cocks and the retaining notch on the piston-rod; and these are certainly most valuable additions, increasing both the usefulness and the safety of the instrument.

RICHMOND, IND.

A CASE OF TETANUS TREATED BY CALABAR BEAN AND HYDRATE OF CHLORAL.

BY THOMAS G. DUNCAN, M. D.

On April 16th, W. G., aged nine, cut his great toe with a dull hoe, making a wound across the nail and extending into the matrix. The parts healed kindly. On the 24th, 25th, and 26th April there was distortion of the face, difficulty in opening the mouth, and some stiffness of the muscles of the back. I saw the patient for the first time April 30th, fourteen days after the injury. There was neither pain nor sensitiveness in the toe; the countenance was much distorted, and the trismus was marked, though not complete; the abdominal muscles were rigid and deglutition difficult; the sphincters acted but imperfectly; the toes were inverted and the legs slightly flexed; opisthotonus and rigidity of the legs existed in such degree that the patient could be lifted, like a board, by the head and heels. Convulsive movements, while not very frequent, were well marked and productive of great distress; the opisthotonus being increased at such times, and the tongue more than once severely bitten. The pulse was irregular and feeble; temperature ninety-nine degrees; appetite fair, and secretions but little deranged; respiration good, except during spasm; spasm of the laryngeal muscles had not occurred. I purposed using the Calabar bean and the sulphate of atropia, but by the advice of a more experienced physician, who was called in consultation, the patient was put on calomel and opium; the former to be pushed to slight ptyalism, and the latter to gentle narcotism. Their administration was commenced in the afternoon; quietude and support were enjoined.

The remedies were persevered in until the 2d of May, at daylight, but were not given to the extent directed. Ice was applied to the spine, and seemed for a while to afford comfort; but after several hours, appearing to produce depression, was discontinued. The disease seemed to have remained almost stationary, but not to have been controlled; the change, if any, being very slightly for the better. Complete quietude had not been obtained by the opiate; but the calomel, though not pushed to the extent directed, had a good effect on the secretions, which, however, as has been stated, were not much deranged. Another physician having been added to the case, it was agreed to discontinue these remedies, and begin at once the Calabar bean and the hydrate of chloral. The administration of fifteen grains of the latter was followed by a tranquil sleep, which lasted for several hours, during which the muscular rigidity was somewhat diminished. In ninety minutes the patient was awakened, that he might get a fourth of a grain of the solid extract of the Calabar bean. This was soon followed by increased muscular relaxation. Three hours and a quarter after he took a second dose of the bean—this time but three tenths of a grain—and in forty-five minutes after this he got another portion of chloral. The bean extract was repeated at intervals of from three to six hours, and increased at each dose by one twentieth to one tenth of a grain until May 7th, M., at which time the dose had reached one and three fourth grains. Three times during this period the medicine was used hypodermically. A portion of the time the pupils were noticeably contracted, and when so the patient was as "limber as a rag," and much prostrated; but as a rule muscular relaxation was effected without contraction of the pupil. The chloral was given in doses of fifteen grains, then in ten and twelve-grain portions, with sufficient frequency to procure quietude, or palliate spasms when they occurred; it was not used hypodermically. Chloroform was inhaled but six times—not oftener—partly because of the patient's aversion to it, and partly because the other remedies really made it unnecessary.

May 7th, during my absence, and through mistake, one dose of the bean was omitted, and opium substituted for the chloral; the latter had been given at a quarter past eight A. M., the bean at twelve o'clock M. The chloral should have been repeated at noon, and the bean at three o'clock P. M. At four o'clock P. M., the patient became rigid; and soon afterward a convulsion began, which was one of the severest and longest of his sickness. Muscular rigidity remained for several hours after the convulsive movements ceased, and did not give way until eight or nine o'clock A. M. the next day, under one and a fourth to one and three fourth grain doses of the bean, every three hours, and ten to fifteen-grain doses of the chloral every three to five hours. At this time marked contraction of the pupils had been produced, which lasted for several hours.

From this date (May 8th) until May 15th there was progressive improvement, and from the 11th or 12th until the 15th there was no convulsion, and but little muscular rigidity; the latter, when it existed, being only temporary. Up to the afternoon of the 12th the bean was administered in the above-mentioned doses, and at short intervals; but signs of depression and slowness of the heart's action were now so manifest that the remedy was rather suddenly withdrawn, and stimulants, with quinine added, were resorted to. The chloral had been given only to insure quiet or ward off threatened spasms, and after the 12th was given in less frequent doses.

In the afternoon of the 15th the patient had a rather severe spasm, and in the night of the 19th yet another, though less severe, which was the last. The next morning the bean was resumed in half-grain doses, at intervals of from four to eight hours; the tonics and stimulants were continued in large quantities, and the chloral as before, sufficiently often to produce quietude. After the 16th the doses of the bean were gradually diminished, and he was directed to take seven twentieths of a grain of the extract, and each day following the dose to be diminished by one twentieth of a grain.

May 25th, the patient is walking about, and may be considered convalescent, though perfect use of the lower limbs has not been restored, and slight contraction of the muscles of the upper part of the face still exists. A few days after the recovery was complete. Slight spasm of the laryngeal muscles, which was absent in the beginning, occurred at different times after manifest improvement began, but was in every instance readily relieved by a dose of the chloral.

It is worthy of mention that some of the largest doses of the bean produced considerable nausea and distress, and profuse diaphoresis; and that the chloral, when taken in fifteen-grain doses, frequently repeated, was followed by severe headache. The smaller quantities were therefore given. The patient occasionally suffered from severe pains in the bowels, which were quickly relieved by paregoric or other opiate.

In this case, the power of the Calabar bean to promote muscular relaxation, and the efficacy of the hydrate of chloral to secure quietude and prevent or palliate convulsions, seemed fully demonstrated. I am aware that it would have been more conclusive to have used the remedies separately, but believing in the efficacy of both I was unwilling to give up either. What curative power is fairly attributable to each medicine, and what the course of the disease would have been without treatment, are questions which I can not answer.

I remained with the patient nearly the whole time, and weighed and administered almost every dose of medicine. The intelligence which he manifested in detecting approaching spasms, and the obedience with which he submitted to the continued and frequent administration of medicines, had, I have no doubt, much to do with his recovery.

BLOOMFIELD, KY.

[The questions raised by Dr. Duncan in the preceding report apply equally to most other published cases of tetanus. What curative power is fairly attributable to any medicine in this disease can not be considered as having yet been satisfactorily determined; and what the course of tetanus would be if treated entirely without drugs it is perhaps impossible to say. The statistics of the disease yield strikingly similar results under the most opposite plans of treatment; and, if mere figures are to be believed, tetanus, after all, is far from being the unmanageable affection which it is generally considered. Unfortunately, however, we are forced to conclude that the statistics in this, as in so many other diseases, embrace mainly the fortunate cases, those that are fatal being seldom reported. After a somewhat careful study of a large number of cases of tetanus gathered from various foreign and home sources—many of them being now published for the first time—I am constrained to think that before any real progress can be made in the prognosis or management of this affection the entire subject will require to be studied anew. Most of the cases contained in the medical periodicals are so imperfectly reported that, for purposes of comparison, they are worthless. Few of the writers mention the pulse, the age, or sex of the individual; the period of invasion or the time occupied in the cure; the names of the muscles affected, or the habits or surroundings of the patient. Very many cases of hysteroid manifestations have evidently been included under the name of tetanus; while as to treatment the issue has in the smallest possible number of instances been staked on any single remedy. In the very case which forms the text of these remarks calabar bean, chloral hydrate, and chloroform were all used. In many other cases from three to ten of the agents most in repute in tetanus at the time were given either simultaneously or in quick succession, sometimes in ordinary and again in appalling doses, and yet, as has been remarked, the average result, so far as statistics indicate, is very nearly the same. In the earlier cases reported by Dr. Eben Watson comparatively small doses of calabar bean seemed sufficient to cure, while in the last case recorded by that writer the patient required the enormous amount of one thousand and twenty-six grains of the alcoholic extract of the bean, introduced one way or another into his system, to fetch him through. He took this quantity, an average of about one grain every hour, during forty-three days, the time occupied in the cure.

The same remark may, in a general way, be applied to the hydrate of chloral, which, it seems, is sometimes used by Liebriech in doses of two hundred grains, while most practitioners have found the tenth part of this sufficient, and Dr. Duncan was obliged to give even less in order to avoid producing headache. The bean and chloral have been successfully combined recently in other cases of tetanus, and yet some late experiments on rabbits have shown that these two agents are antagonistic—the chloral counteracting the convulsions produced by over-doses of the bean. An advantage claimed by Dr. Watson for the bean is that the relaxation which it produces enables the patient to swallow fluid food, while other relevants, such "as chloral and chloroform for instance, prevent the taking of food."

Thus the treatment of tetanus has shifted and changed, if not with each succeeding year, at least with each new remedy, however unlike in "form and essence," in properties or effects: given now in small and again in fearful quantities—as, for instance, wine from a few ounces to a cask, opium from a few grains to several pounds, or laudanum from a few teaspoonfuls to many gallons; and under all and every method the average of cures continues to be about the same; acute tetanus sweeping on still to death, and chronic or subacute tetanus tending still to recovery: the former rarely relaxing its hold on its victims under any management; the latter often yielding to the simplest drugs, and sometimes even disappearing without drugs at all.

A large number of cases of tetanus has been recently tabulated by my friend Dr. R. O. Cowling, which will appear in the next number of the Practitioner, and it is believed will substantiate all I have said, and make apparent the necessity for studying the disease anew. Sir James M'Grigor said, nearly sixty years ago, after an experience with the disease much larger than that of most practitioners, that a successful mode of treating tetanus is certainly yet to be discovered. John Hunter declared that he knew of no remedy for it. Many new agents have been added to the pharmacopœia since that time. Is there one among them all which possesses any real power over tetanus?—D. W. Y.]

JERUSALEM FROM A DOCTOR'S STAND-POINT.

BY JAMES F. HIBBERD, M. D.

I spent some days in Jerusalem and the neighboring parts of Palestine in November, 1869. There is nothing in the situation of Jerusalem to make it unhealthy. It is located in the midst of the mountainous region between the Mediterranean and the Dead Seas, about thirty miles in a direct line from the former and fifteen from the latter. It is built on a tongue of land between the valleys of the Kidron and Hinom, in north latitude about thirty-two degrees, and is two thousand six hundred and sixty feet above the level of the Mediterranean, and three thousand nine hundred and fifty-two feet above the Dead Sea. Mean summer temperature seventy-three degrees; winter, forty-nine degrees; annual, sixty-two degrees; amount of rain from October, 1867, to May, 1868, twenty-six inches, and from May to October none. The site is rocky limestone, and undulating and susceptible of easy and complete drainage. The resident population is probably eighteen thousand; viz., five thousand Moslems, four thousand Christians, and nine thousand Jews. The city is compactly built; the streets narrow, dirty, and badly paved, or not paved at all. Two leading streets, cutting each other at right angles—one bearing the brief business-like name of "The Street of the Gate of the Prophet David"—divide the city into four quarters: the Christian, the Armenian, the Jewish, and the Mohammedan quarters. The Jewish quarter, particularly, is very densely populated—the houses dark, damp, and untidy; and the Moslem quarter is in but little, if any, better sanitary condition. Excepting the colony of lepers, inhabiting an isolated row of huts at the south end of the Jewish quarter, I had no opportunity of seeing disease in private houses.

The general appearance, however, of the inhabitants is by no means up to that of good average health.

Eighty or ninety years ago the Society of the Deaconesses of Prussia, a Protestant association of Kaiserwerth on the Rhine, established a hospital in Jerusalem, and have maintained it since, aided by such contributions as the charitably disposed donate to them. With true christian benevolence they admit and administer to all applicants, without regard to country or creed. The hospital has about fifty beds, and receives about seven hundred patients annually, mostly peasants. The institution is poor, and the lady managers have a hard struggle to make their limited resources cover their expenditures, and the want of means curtails their usefulness.

The diseases admitted to the hospital are mostly malarial and rheumatic, and debility arising out of insufficient food, inadequate clothing, and exposure. A walk through its wards with the medical officer exhibits to one what can be done for the afflicted by perseverance, industry, cleanliness, and attention, in a building unsuited to the purpose, and with means far below the necessities.

On the high ground outside the northwest angle of the walls of Jerusalem is the great Russian establishment, consisting of a cathedral of imposing Greek-church architecture and finish, a consulate, one large hospice for female pilgrims and two for males, a hospital, and the necessary attendant buildings. The whole is inclosed by a high, strong white wall; and the houses being white also, stone or stucco, this Russian establishment is one of the most striking features of the landscape in any distant view that embraces the whole of Jerusalem.

The hospital has been erected about ten years, and is a very strong building—the heavy walls and arched ceilings apparently having been designed by some military engineer to resist warrior Bedouins as well as to shelter invalid pilgrims.

The arrangement of the interior is not quite what it should be, nor is ventilation perfect; otherwise the hospital is well adapted to its purpose, and is creditable to the authorities, who erected it as an asylum for such invalid members of the Greek Church as might need the protection of its roof and the attention of its officers. It was built by the Palestine Society of St. Petersburg, and its means are ample to supply every demand likely to be made upon its treasury. The hospital has about sixty beds, and receives about five hundred patients per annum—mostly pilgrims belonging to the Greek Church, who arrive in Jerusalem in March, to be present at the Easter ceremonies (the great annual festival of that church), and remain about three months. Women predominate in these pilgrim companies, which are composed of old people (often eighty years and over) and the quite young; the able-bodied and those of an age and condition for productive labor remaining at home.

Malarial and rheumatic affections are most rife, and that kind of debility belonging to aged persons not well nourished nor properly protected from the elements. Even many of these old people visit Jerusalem under a vow to eat no meat and drink no wine during the pilgrimage, and in the reduced strength attending such unwonted abstinence they almost habitually sleep on the cold stone floors of the churches, or in the close damp cells of the convents. Much difficulty is experienced in the hospital in the management of these cases, as many of the victims are so fanatical as to prefer death to a violation of their vows, and consequently refuse soup and every preparation that contains either wine or meat in substance or even essence; most of such necessarily sink, and finally perish of inanition.

Dr. Th. Sandreczky, a Prussian by nativity, has charge of both the Russian and the Prussian hospitals—the latter for several years, the former about one year—and in these pleasant quarters he makes his residence. Dr. S., in making his daily visits to the hospitals, uses himself seven different languages, and requires interpreters for several others, such is the variety of tongues that congregate in and about the Holy City. He speaks the English almost as correctly as if it were his vernacular. His views both of medical science and practice seemed to me remarkably sound, while he abounded in strong common sense and the other qualities necessary to fit him for the peculiar and very arduous duties to which he is devoted. Accomplished and amiable, I found him one of the pleasantest gentlemen I met abroad, and when, after accompanying me for an hour on my journey to Jaffa, at my final departure from Jerusalem, I took leave of him, I could but regret that our association had been so soon terminated.

There is also a Jews' hospital, supported by the people of the Hebrew faith, and patronized by them solely. The English Society for the Conversion of the Jews supports a hospital from which they exclude all persons except Jews, hoping, it is said, by devoting themselves entirely to these people to make their kindness a measure for converting them to Christianity; but, if I am correctly informed, the several years' labor of these good missionaries has not been rewarded by a single conversion from Judaism.

Besides these separately organized hospitals, many, perhaps all, of the consulates of the leading powers of western Europe represented in Jerusalem make provision for such of the diseased poor of their respective countries as apply for relief.

RICHMOND, IND.

Reviews.

Address on the History, Condition, and Means of Improvement of Medical Journalism in the United States. By N. S. Davis, M. D., President of the American Association of Medical Editors.

The appearance of this interesting address offers a suitable opportunity for a few observations on American medical journalism; and although we thus temporarily leave the legitimate path of the American Practitioner, we hope our readers will look leniently if not approvingly upon the transgression.

Having been the first to suggest the Association of Medical Editors, and taken some part in its establishment, the general approval in words which the organization has met from the medical press of the country has been at least encouraging. Would that, on the part of some at least, this approval might amount to more than words, and that by their presence at the annual meetings of the association, and participation in its deliberations, they might add to its vitality and power. We believe it worthy, in plan and purposes, the hearty support of every member of our body editorial, and can fully indorse the words used by Dr. Davis in the following passage from his address: "If all those who occupy the responsible position of editors of medical periodicals in this country will coöperate by becoming members of this organization, and prove true to its principles and purposes, it can wield a more direct and powerful influence for good, both in elevating the character of American medical journalism and increasing the honor and usefulness of the whole profession, than any other organization in existence."

Quite recently there has been proposed in France a *syndicate* for medical journalists. This is a tribunal, selected from their own number, to which all differences and disagreements may be referred. It is to be hoped that such dignity, courtesy, propriety, and justice may characterize the course of American editors, in any controversies which may arise among them, that their association may never be required to exercise the function of a syndicate.

The American Association of Medical Editors has certain definite objects. Are these utopian? Is the work of those who have heartily engaged in it vain as plowing sand and sowing salt—foolish as extracting sunbeams from cucumbers? In the first place, the simple meeting together of these editors once a year, clasping each other's hands in all heartiness, and engaging in social conference, will excite a friendly feeling in most. When we see each other face to face and eye to eye, words of mutual kindness and courtesy will come to the lips; and the memory of past meetings, with the hope of future ones, will live through the year, and repress, should temptation occur, hasty or harsh words which might flow from the pen. Ten minutes' interview with a man is worth an hour's reading what he may write, in order to know him; and knowing each other by personal acquaintance, we can exercise greater forbearance and charity toward each other, in whatever differences may arise. The lachrymose lamentations of a hypochondriac, the angry ebullition of the splenetic, the eructations of a dyspeptic, the irritability of those whose nervous system has been shattered by disease or misfortune, are, not in kindness but in simple justice, to be regarded as evidences of disease; and as well treat madness or small-pox with the lash as imagine harsh words and deeds a remedy for such manifestations. Laying aside these bold illustrations, may we not meet, in our editorial experience, with minor manifestations of what we believe errors in judgment or in action that should be attributed to physical rather than to mental or to moral causes? Or again, a man, unless he be very strong indeed, stronger than most of us are, will have his views tinctured in some degree by the atmosphere in which he lives — his conduct molded in some measure by the circumstances which surround him — but knowing the individual we can make due allowance for what he may do unconsciously or by *quasi* compulsion. And after all, knowing how easily we ourselves may err, or knowing how slowly our own opinions on certain subjects have been formed, we can better tolerate apparent or absolute errors on the part of our friends, trusting to a coming light which shall make each of us see aright. He who was partially cured of blindness, so that he saw men as trees walking, was not left with half sight by the Divine Physician, and berated for not seeing as others did, but his eyes were touched again.

This then, one of the objects of the association, the cultivation of friendly relations and courtesy among editors, is neither mean nor utopian, but it is noble and practicable.

Another object of the Association is the elevation of the standard of medical journalism. We believe no critical reader is satisfied with the journals which he reads; we believe no editor believes his own journal as good as it might be, as good as it ought to be. To-day should satisfy no man, for there is a better to-morrow if he will labor for it. Undoubtedly there are obvious faults in many of our medical journals—faults not so obvious, it may be, in all. A medical journal should be well printed on good paper; thus presenting, if not an attractive, at least not a repulsive appearance, and being worthy of recording useful knowledge and of being preserved. Its proof-reading ought to be most carefully done, so that an error in orthography or in punctuation in a dozen pages ought to be the exception. Even in these matters of minor moment how many fall below a just standard!

Among the faults alleged by Dr. Davis is the small space devoted to original matter, while selections occupy from a half to two-thirds of a number, so as to give the journal the character of a reprint. Another is in the review department, some journals frequently contenting themselves with a simple announcement of new books, giving title-pages and sometimes tables of contents.

So far as Prof. D.'s first criticism is concerned, we frankly say that we occasionally meet with original matter that we would gladly see replaced by as many pages from Wood or Watson, from Gross or Erichsen. If a journal has enough and able contributors, there is no excuse for such paucity of original articles ; but if it has not, if living from hand to mouth, then commend us to an editor who will make good selections. Here a word as to able contributors. It is not requisite that they should be men of wide reputation, or that they should be residents of our great cities and of our medical centers. There is an amount of medical knowledge and experience hidden among medical veterans in villages and scattered hamlets of our land, among men who rarely, if ever, put pen to paper—some from sincere diffidence, others from laziness quite as sincere—which, could it be called forth, would enrich beyond comparison any journal in the country. It is not those, either in cities or in the country, who are always the most ready to write that are invariably the most able to write.

Dr. Davis objects to the number and the character of the advertisements found in some medical journals. If the number of pages of reading-matter be the same, we do not see that it makes any great difference to the readers whether the advertisements are few or many ; and as to the character of the advertisements, so long as the immaculate *code* (which, by the way, we have seen positively productive of great evil, wrested from its pure spirit and purpose to gratify the malice of ignorant and bad men, and which we hope to see, ere many years, materially modified) is not violated, we do not care whether these pertain to medicine or to music, to morals or to sewing-machines.

The "editorial" matter receives the severest reprobation at Dr. Davis's hands. Of editorials, as of snakes in Ireland, there are none in some journals; "others present one or two pages headed 'editorial,' and filled with facetious paragraphs, personal slurs, news items, and attentions to new advertisements. Only a very few out of the whole number occupy what editorial space they have with candid articles, calculated to enlighten their readers, on the many important questions connected with the sanitary, social, ethical, and educational interests of the profession." But here we must close our transcript, though not complete, of the indictment which even Dr. Davis, a man of the amplest professional charity, makes against our periodical medical literature.

We have already referred to some of the charges, giving to some an approval more or less qualified. There is one, however, which we wish to indorse most fully; and that is the utter neglect of reviews of books by some, and the exceedingly imperfect manner in which these reviews are made by some others. In the first place no editor should attempt to write notices of all the books he receives; and yet these books, if worthy on the one hand, or if on the other hand unworthy, and any chance of the profession being deceived, must be properly noticed. This work, no matter what his learning or his leisure, he is not capable of doing alone; let him therefore divide his receipts from publisher with such medical gentlemen as are best qualified to examine, judge, and write of their contents. This point is so obvious that any words concerning it may appear needless, and yet we feel confident that it is more or less neglected by many journalists.

And now, for the moment passing from the special topics of the address, let us ask what is the use in a medical journal—upon what ground does it base its claim to professional support? No matter what motives and purposes may be in the minds of its conductors—whether it be a college, a medical publisher, or physician ambitious of honor or of usefulness, who have started the enterprise—its sole right to live, its entire claim to the patronage of doctors, is that it helps them, contributes to their ability to cope with disease—in a word, makes them better doctors. To the prevention and cure of human maladies all the forces and departments of medicine conspire; here is the focus to which all its rays of light converge. And a medical journal must be largely—we will not say exclusively—devoted to therapeutics, in order to realize this fundamental idea. What most readers want in such a publication is something plain and practical, something they can readily understand and apply, something that will be useful in their daily work. Tried by this test, how many medical journals fall below a just ideal, no one who has not had access to a goodly number, diligently searching for practical matter, can know. Etymologically the word *journal* conveys the idea of something transitory, evanescent, a mere mirror of passing events, a hurried record of that which is immediately transpiring—it is of the *day*, *daily*. Nevertheless medical journalism is something more, something better; it is not a mere picture, but it is a power; it is not only a form, but it is a life; in all the *true* facts—*false* facts are not yet forgotten in Cullen's grave—it speaks not solely for the day, the week, the month, the year, or even for the century, but for all time. Facts are things done, the outworkings of truths, and truth is both immortal and immutable. A good medical journal now will have its uses and value long after its present conductors and readers cease from earthly toil; and hence it is not the present alone, wonderful and important as it is, but the future also, which gives dignity, value, and responsibility to medical journalism. It is quite true that much which is immature finds its way into medical journals—crude thoughts, imperfect observations, partial experiences. We think them true at the time; but when more light comes, when we observe more patiently, more continuously, we find them only half truths, or else worthless counterfeits; these, like other unripe fruit, have no good use, and must rot. And here let us observe that one who writes for a medical journal ought to be first well assured in his own mind that he is writing true things; then that they are of practical value, either directly or indirectly, immediately or remotely; and finally, that he says what he means—nothing more, nothing less—and in such a way that his meaning can be apprehended readily, and can not be misapprehended by an intelligent, unprejudiced reader. One of the most grievous faults of medical writers is diffuseness—sometimes two pages occupied by a narration which could be told in two lines. It is an insult to one's own knowledge to introduce into an article irrelevant matter; it is an insult to intelligent readers to furnish minor details. Let a man seize upon the essentials, and present them clearly, strikingly, and not obscure his picture with a thousand and one petty images.

Dr. Davis thinks our medical journals are too much alike—not enough variety in character. This undoubtedly is true. And yet such a criticism every year will lose its force; for in addition to the *specialistic* tendencies of progressive medicine—these thus causing the demand for and the supply of journals devoted to special departments—in the longer experience of those already in the editorial corps, and in the establishment of new journals, there must be greater diversities in journalism. Old editors will impress more of their own individuality upon their work, new will seek to characterize theirs by improvements and novelties. As differentiation marks scientific not less than physiological and social evolution, as we ascend from the simple to the complex, so there will be in our medical literature more and more separation into different fields of labor. But amid all these separations and segregations—which, with the progress of our scientific knowledge, must increase rather than diminish—there is a law binding them together as parts of an indivisible unity.

They are rills distinct and apart, but flowing from a common fountain and destined for a common end.

We intended alluding to the criticism made by Dr. Davis upon the "editorials" of medical journals, and urging that these as well as contributions should always be dignified and free from personalities; that coarse, vulgar expressions and so-called "slang" will not be used by gentlemen in conversation, still less in print; and that a medical journal can hardly be put to worse uses than to be made an instrument of personal defamation, or professional gossip and scandal, or even an occasional organ for party politics. We believe that the Association of Editors can do much toward the cultivation of just views of medical journalism, and toward elevating its standard.

Among other important objects of the Association is the improvement of medical education, and space allows but an allusion to it. If the editors fail in this eminently worthy endeavor they follow in the footsteps of illustrious predecessors. What has the American Medical Association, what the Teachers' Convention, done in this regard? Words enough, resolutions enough, but these have been weak as ropes of sand in fixing any permanent good; reports upon reports, long and loud, but not strong enough to jar a single school in Philadelphia or Chicago, in New York or in New Orleans, in Boston or Baltimore, in Cincinnati, Louisville, or St. Louis, in its settled array. But behind the throne there is a power greater than the throne; let the forces which now lie dormant, or only fitfully manifest themselves in this regard, be aroused, evoked, combined, and concentrated upon a practicable object, and the colleges will ultimately feel and acknowledge their power, while the profession will with one heart and voice sustain the advanced movement. This is our abiding faith. But how can two, how can forty, walk together except they be agreed—how can medical editors have a community of sentiment upon this great problem of medical education?

Are we to have concert or forty concerts, accord or discord? Some see no hope of agreement. But let us wait; let us labor in faith and patience to promote concord before we declare it impossible; let us see if we can't first agree before we assert disagreement is inevitable. We believe in progress; that "knowledge grows from more to more," that light increases, and that whatever is true and good and practicable will become every year clearer and plainer to men that are seeking it; and thus from the dimness of the dawn we pass into the full day.

But at any rate—and with this the consolation of many a laborer who sows and lives not until the harvest, or who sows and finds that soil or drought or storm give him but half a crop, we terminate our remarks—no manly toil, no honest labor for good ends, is utterly vain. T. P.

A Practical Treatise on the Diseases of Children. By J. FORSYTH MEIGS, M. D., and WM. PEPPER, M. D. Fourth edition (of Meigs on Diseases of Children), revised and greatly enlarged. Philadelphia: Lindsay & Blakiston. 1870.

This treatise, long held in high esteem, comes to us now carefully and thoroughly revised, considerably enlarged, and much improved. Limited though sufficient space is given to pathology, etiology, and morbid anatomy, while treatment is elaborately considered. Modern practice in the various portions of the world is fairly set forth, the authors commending that which in their own experience has proved most successful. The views expressed in former editions as to the employment of blood-letting, blisters, mercury, and antimony are considerably modified in the present. Drs. Meigs and Pepper still adhere to bleeding, antimony, and blisters in some infantile affections, but scarcely employ mercury save in syphilis, and discountenance it totally in bowel troubles. Our experience compels us to put faith in diminutive doses of this drug in these disturbances; and as for bleeding and tartar emetic we conscientiously avoid both. We cordially agree with them in their emphatic condemnation of tapioca, sago, arrow-root, etc., though we can not coincide completely in their views of diet. Fruits, which they condemn in "summer-complaint," and fat bacon, which they ignore, we find important adjuvants in the management of this malady. In fact, soft peaches, blackberries, tomatoes, calomel, opium, and fresh air we regard as the most reliable remedies we possess for cholera infantum. Drs. Meigs and Pepper, after enumerating what they charge as the errors in diet, and crimes against the stomach, so universally and unrestrainedly committed by American children, conclude as follows: "The wonder is, not that we are a pale, thin, dyspeptic, and anxious-looking race of people compared with the Europeans, but that we have any health at all." Now, whether the method of rearing children in this country be judicious or not, of this fact personal observation has convinced us, namely, that, barring the people of Great Britain, Americans are not physically inferior to any other nation in the world. Every practitioner should possess this book, and possessing it he will need no other work on the diseases of children.

L. P. Y., JR.

Electricity in its Relations to Practical Medicine. By MORITZ MEYER, Royal Counselor of Health, etc. Translated from the third German edition, with notes and additions, by WM. A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, etc.

Here is an admirable treatise upon a subject that has elicited from the most eminent laborers in the field of nervous traits and diseases a large measure of their study and research. Within the last few decades science has developed with a careful hand the leading rôle played by this force in the rendition of both vital and physical phenomena, while its marvelous curative powers have been recognized and faithfully employed by those who are foremost in the ranks of medical men. Among these may be mentioned Dr. Hammond, who, as editor and translator of the work under review, records his estimate of its value in these words: "The best that has yet appeared." It is unquestionably the most useful book upon electro-therapy among the many excellent ones that have lately been issued, all of them tending to assure him who, twenty years ago, judiciously forebore to pin his faith to any of the ever-shifting theories of electrical action, that he may give full credence to the current reports of its therapeutical efficiency without fear of a lurking fallacy.

Every chapter of this volume bears the impress of plodding search into its special matter. They are so many quests for facts conducted by a philosopher, active and accomplished with al, but a rigid adherent to the experimental system Wherever they would be appropriate, or shed further light upon an obscure subject, the author has introduced details of experiments and clinical records.

There are here reported the life-time studies of a learned man, and of one who holds high official trusts—guarantees alike of professional success and unblemished integrity. He has no pet theory to substantiate; the reader can nowhere find an effort to twist supple facts around the stiff stem of a. favorite notion. On every page the author is candid, weighty, conclusive. However, a book that has stood the severe test of three editions in the original German, that is regarded by the profession of Germany as a standard, needs no further encomium from us. The English-speaking branch of the profession have reason to thank the translator for presenting it to them in so becoming a guise.

Scattered through the volume a few blunders, probably typographical, will necessitate that universal attendant to the later numbers of a first edition, a column of errata. On page 5 he speaks of the vauntings of charlatans, "who hawked the pile of Volta in the market-places as a panacea for every *imaginary* ailing." It is obvious from the text that *imaginable* was the intended word. On page 18 we read: "If we let C represent the strength of the current, E the electro-motor power, R the resistance, we have, in accordance with the Ohm law, the formula, $C = E \div R$; the strength of the current equals the electro-motor power *multiplied* by the resistance." The formula is correct, but the verbal statement following belies it. On the same page the same mistake again occurs, in company with a sad jumble of symbols, as—"So far therefore as the resistance depends on the length L, and the diameter of the conductor D, it may be expressed by the formula, $R = S \div D$: the resistance equals the length *multiplied* by the diameter." It should be, "$R = L \div D$: the resistance equals the length *divided* by the diameter."

It is to be regretted that the American editor has been so sparing of his pertinent notes and cases, which, few as they are, have enhanced considerably the value of the work. We notice from him some suggestions concerning American electrical apparatus; a description of an ingenious arrangement of the voltaic pile, which he has constructed for the treatment of infantile paralysis; some notes upon lead palsy; and an elaborate contribution to the pathology and therapeutics of organic paralysis in infants.

The enterprise, resources, and vast experience of Dr. Hammond in his specialty justifies us in the expectation that ere long he will appear in the part of author. We look for his entrance with lively interest.

J. W. H.

Clinic of the Month.

HYDROPHOBIA.—M. Bouley, in a communication recently made to the Academy of Sciences, Paris, gave some important facts and statistics in reference to hydrophobia. These are the results from an investigation directed by the Minister of Agriculture, and embrace the period from 1863 to 1868. During the period mentioned three hundred and twenty persons were bitten by rabid animals (dogs, cats, and wolves); hydrophobia resulted in a fraction more than forty per cent., while about thirty-eight per cent. did not suffer; the great majority of those who were bitten and the result not given most probably recovered. In regard to the sex of those bitten, two hundred and six were males, eighty-one females, thirty-three not known; the mortality was forty-eight per cent. with males, thirty-six per cent. with females. Children, though more exposed to bites from rabid animals, are less predisposed to hydrophobia than adults. In regard to season, eighty-nine cases occurred in spring, seventy-four in summer, sixty-four in autumn, and seventy-five in winter. As to incubation, these statistics show that the great majority of cases are developed within sixty days, while beyond the sixth month not a single case occurred; if a person bitten by a rabid animal reaches the ninetieth day without symptoms of the disease, the probabilities are largely in favor of entire immunity. Most patients die on the second and third days, and only in six cases did any live beyond the fourth day. In regard to the part upon which the wound is inflicted with reference to mortality, ninety per cent. of those upon the face are fatal; sixty-three per cent. of those upon the hands; twenty-eight and twenty-nine per cent. of those upon the arms and legs. In cases where the wound was cauterized sixty-eight per cent. recovered; while where it was not cauterized eighty-four per cent. died. Cauterization (the actual cautery is preferred) ought to be resorted to promptly; and where it is not used, sucking the wound, *expression*, the ligature, where the part permits, may be resorted to. *(Archives Générales.)*

BROMIDE OF POTASSIUM.—M. Maurias, of Venice, in continuing his clinical experiments with bromide of potassium, has found that this salt is eliminated not only in the urine, but also in the saliva. The autopsy of a patient who died while using the bromide enabled him to detect its presence not only in the blood and other fluids of the body, but in the brain, spinal cord, liver, lungs, etc. The author has ascertained that the bromide is not assimilated. Experiments were made with bromide of iron, which in some cases is an excellent substitute for the bromide of potassium. When it is given, bromine is found abundantly in the urine, but iron scarcely at all, as it is probably retained in the blood. *(Ibid.)*

BROMIDE OF SODIUM.—M. Decaisne states that the bromide of sodium, employed in the same doses as, and sometimes in larger doses than, the bromide of potassium, has given the same results in hysteria, epilepsy, chorea, etc. He believes therefore that the therapeutic action of the bromides belongs especially to the bromine. *(Ibid.)*

[A case of epilepsy, treated in this city by the bromide of potassium without effect, has been apparently cured by large doses of the bromide of ammonium.—D. W. Y.]

NITROUS OXIDE.—Mr. J. R. Begg, Dundee, reports a case of excision of the mamma for cancerous disease, the patient being anæsthetized with nitrous oxide. The operation was performed in the usual way; the whole of the gland removed;

four arteries secured by torsion ; edges of incision fastened by seven sutures. The whole operation, from the commencement of inhalation of the gas to its termination, lasted eight minutes and a half. The reporter states that this is the longest operation on record in which the gas has been given. (Lancet.)

Carbolic Acid in Uterine Catarrh.—Dr. W. Playfair treats uterine catarrh by the application of a concentrated solution of carbolic acid—eighty to twenty of water—to the lining membrane of the uterine cavity, made by means of fine whalebone or flexible metal probes, round which a thin film of cotton wool is wrapped. It is no doubt advisable to select the cases judiciously, and where there is much uterine tenderness intraüterine treatment should be postponed until this has been diminished by rest, leeching, etc.; but with proper precautions the treatment is perfectly safe. After the first application the discharge is sometimes increased; but after the second or third it is generally greatly diminished, and a single application is often sufficient to cure superficial erosions of the cervix. As a rule, there is no difficulty in passing the probes, as in true uterine catarrh the os is invariably patulous. As the case improves the patulous state of the os diminishes; and this is found to be one of the most certain signs of improvement. *(Ibid.)*

[Practically we find that carbolic acid and water, in the proportion mentioned by Dr. Playfair—four to one—do not make a clear solution, and therefore we prefer the following formula: Carbolic acid, six drachms; water and glycerine, of each, one drachm. M. This application may be repeated in from five to seven days ; it is better that it should not be made for at least three days before and three after menstruation.—T. P.]

Broken Ribs.—A dressing for broken ribs, which should not compress the entire chest and interfere with respiration, and yet fix the injured rib, has long been a desideratum among surgeons. M. Demarquay thinks he has accomplished this by the following: take linen strips, two fingers in breadth, and long enough to reach from the spine to the sternum; saturate them with collodion; apply them directly over the seat of the fracture, covering the necessary extent of surface. Use a sufficient number of layers to give the required firmness. The advantages of this dressing are that the compression is limited to the spot where it is needed, and allows of free movement of other parts. *(Nouv. Dict. de Med. et Chirurg.)*

ON THE NATURE OF MUCOUS TUBERCLES OR PATCHES.—It is well known that the eminent Belgian syphilographer Thiry denies the specific character of these bodies, believing them to be caused by want of cleanliness or excessive coitus, and always curable by local means. He further denies their virulence or contagiousness when unaccompanied by ulceration, and declares that systemic syphilis only succeeds them when they are accompanied by induration. Dr. Soresina, of Milan, confirms these statements by a large number of cases. Attention to cleanliness, simple washes, and the occasional light application of nitrate of silver removed the patches in almost every case. Thereupon he concludes that "mucous patches occurring in the genito-anal regions, among prostitutes, are originally simple in character, and wholly independent of constitutional syphilis." (*Annales de Dermatologie et Syphilographie.*)

THE SUBCUTANEOUS USE OF CORROSIVE SUBLIMATE.—M. Liegeois does not confine the hypodermic administration of the bichloride of mercury to syphilis alone, but recommends it in other affections dependent upon change in nutrition. He got excellent results from it in a case of simple ecthyma, which covered almost the entire body. The disease, which had existed three months, was cured completely by fifty injections, without any other treatment. A case of sycosis of six months duration, and an eczema which had lasted a month, and occupied almost the whole of the legs and arms, rapidly yielded to the same means. *(Ibid.)*

ERYSIPELAS TREATED BY QUININE.—Prof. Gross was in the habit of saying in his lectures that simple idiopathic erysipelas usually disappeared under almost any treatment after the *primæ viæ* had been set right. Many surgeons have laid great stress upon local applications in this affection. Blisters, nitrate of silver, tincture of iodine, sulphate of iron, mercurial ointment, and hog's lard have one and all had their advocates. Mr. Quain used to say that "aqua fontana" was equal to the best. Twenty-five years ago Velpeau lauded an ointment of the sulphate of iron; he lived, however, to admit that he had overrated its virtues, and that the remedy neither diminished the duration nor limited the extent of the disease. Many years before his death he declared that "a *general* remedy for erysipelas is what we want, and what has not yet been discovered." Nor is such a remedy likely to be discovered soon, for erysipelas is a disease dependent upon such a variety of circumstances that it can never be successfully treated by a single remedy. The three drugs which, as such, are in most general use here in this disease, are the tincture of the chloride of iron, the iodide of potassium, and the sulphate of quinine; the first and the last often being given conjointly. Perhaps more physicians pursue this than any other practice. M. Perroud, of the Hotel Dieu, Lyons, confirms the value of quinia in the idiopathic form of the disease, and states that when it is given in small but repeated doses it promptly arrests the progress of simple erysipelas of the face, and frequently cures it within two or three days. He thinks the effects of the remedy are much less marked in the ambulant form of the affection, and in individuals suffering from vices of constitution, such as rheumatism, etc. *(Ibid.)*

SALICIN IN HEMICRANIA.—Dr. J. Waring Curran reports a number of cases of hemicrania of non-malarial origin in which salicin acted most happily. In brow ague and hemicrania due to miasm it is inferior to either quinine or arsenic. But in hemicrania independent of malaria, though periodic, Dr. C. regards salicin as a therapeutic agent of great efficacy. (Medical Mirror.)

INCISIONS IN CARBUNCLE.—Mr. Holmes Coote says respecting incisions in carbuncle that, while no positive rules can be laid down, division should be an exceptional and not constant rule of practice. Most carbuncles get well without it. But incisions are of use to relieve intolerable pain; to prevent the spread of a carbuncle into parts where disease would be dangerous to life, such as the side of the neck; to save integuments where we find a great bag of slough and matter. Whenever an incision is made it should go completely through the slough. The preservation of the skin is a matter of importance. In those cases where a large extent of integument sloughs, the closure of the wound is a protracted process. *(Ibid.)*

INJECTION OF IODINE IN CHRONIC HEPATIC FISTULA.—Dr. Lauchlan Aitken recently saw a case of hepatic fistula (the result of an abscess which had opened spontaneously) which was situated immediately below the xiphoid cartilage, and about three and a half inches above the umbilicus, and admitted a No. 10 bougie. It had everted edges, and from the fistula trickled constantly a thick slimy mixture of pus and bile, especially abundant at the close of a long expiration. A probe penetrated about three and a half inches into the liver substance, and that organ was enlarged, measuring nearly five inches in a vertical line from the right nipple. The patient had a sallow complexion and yellow conjunctivæ, but appeared to enjoy fair health, apart from the weakening effect of the discharge. He injected a couple of drachms of the tincture of iodine (B. P.) into the fistula; and as the discharge diminished greatly, the same injection was repeated after an interval of three days, and again on the fifth day after that. He did not see him for more than a month, when the improvement in his appearance was marked. Two days after the last or third injection the discharge had ceased altogether, and the wound entirely closed a day or two subsequently. All his functions were now healthy, and he had no pain on pressure over any part of the liver. There was a firm cicatrix at the point where the fistula had opened. (Edinburgh Medical Journal.)

TREATMENT OF FRACTURE OF THE FEMUR.—Dr. G. L. Simmons, of California, says: "After some unpleasant experiences with different kinds of extension and counter-extension apparatus in the treatment of oblique fractures of the femur, I adopted a single inclined plain bed, with a solid bottom (perforated for a trap if desirable); but instead of stopping the incline at the ischium, I continue it to the head of the bed, in order that the whole weight of the body may be instrumental in the work of counter-extension. To the side of this inclined bedstead I attach a cushioned rail, raised several inches above the level of the hair mattress, and to its foot a piece perforated in two places for the extension bands, so as to be able to carry into practice the newer notions of extension by weight and adhesive plaster. This combination has never been introduced into surgical practice to my knowledge. It may be said to combine some of the ideas of Gibson in regard to the position; those of Desault in relation to the necessity of keeping the leg, thigh, and pelvis as a whole; and those of modern conservative surgeons in regard to continuous extension. With such an apparatus, simple and easily constructed, I have seen treated during the past season six cases of fracture of the femur, with as good results as are possible with any other apparatus, and certainly with greater comfort to the patients. It keeps the pelvis and upper fragment back; it keeps downward the lower end of the fracture; it makes some resistance to a rotary motion of the limb. Without the side rail it nearly resembles the dressing followed by Flint, of Louisville, Ky. A first view of a patient in the inclined position suggests the idea of discomfort. In practice, however, patients have not complained, and it is easy to raise the head alone on a pillow to a more natural position. The elevation of the injured limb is so well calculated to subdue local congestions and relieve suffering that no complaints are made of the situation of the body." (Pacific Medical and Surgical Journal.)

THE BULLET-CURE FOR ILEUS. — Concerning this old remedy for colic, which is being revived in a modified form by Dr. Maydieu in France, Dr. Henry Gibbons tells the following anecdote: "Some forty years ago a traveling preacher was taken sick with colic, in the house of a kind old lady where he was spending the night. The good lady brought a bullet, which, after warming, she induced him to swallow. He was soon relieved from pain, and then began to reflect on the course of the bullet, and at last suggested to his nurse a doubt whether a body so heavy could find its way through the intestinal labyrinth, fearing that it would lodge there permanently. 'You need not be the least afraid,' said the lady cheeringly, 'for that very bullet has gone through *me* at least twenty times!'" *(Ibid.)*

CARBOLIC ACID AS AN ANÆSTHETIC.—Erasmus Wilson, Esq., says he often uses carbolic acid as a local anæsthetic, and always with the most satisfactory result. He very commonly employs it previously to the application of caustic to lupus and epithelioma. It benumbs the surface, it dulls the excessive sensibility of the superficial nerves, and it thereby permits the caustic action of our remedies, with a great reduction in the amount of pain. (Journal of Cutaneous Medicine and Diseases of the Skin.)

SCROFULO-DERMA.—Mr. J. L. Milton, after defining scrofulo-derma to mean scrofulous ulceration of the skin, wherever it may be seated, and under whatever form it may appear, says the tendency of the affection is to get well of itself sooner or later, and hence it is easy to understand how it happens that it also gets well under treatment of every kind. The only remedies from which he has ever seen the least benefit are purgatives, and from the use of these he has often witnessed the best results; not that he extols them as a certain means of cure, but because the judicious employment of them rarely fails to do some good, and in a great many instances brings about a rapid and permanent closing of the ulcerations, with an unmistakable improvement of the health. He prefers purgatives which contain mercury, given over night, and salines taken in the morning. One thing seems absolutely necessary, and that is that they should be taken to the extent of inducing tolerably free purging, and that they should be continued for a long time. The acid solution of iron may be given after the salines and mercury have been employed for some time; a child of five or six years of age will bear very well from four to six minims three times a day in a large wine-glassful of water. The use of this remedy should, however, not interfere with the occasional use of the purgatives, which ought to be given quite twice a week till the sores are closed. The most valuable topical application in scrofulo-derma is, according to his experience, the acid nitrate of mercury. The method of using it is this: a piece of lint is rolled up into a firm ball the size of a small pea, and then tied to a butcher's skewer; this is dipped into the acid and applied to a small part of the surface. A basin of water should be at hand, and immediately anything like severe smarting begins the part should, if possible, be plunged into it; if that be impracticable it should be freely bathed with the water. After this the ulcer simply requires to be covered with clean, soft cotton wool, kept firmly on by means of a binder till the next day, when it is removed by simply steeping in hot water, and the acid is reäpplied. All ointments, lotions, fomentations, except occasionally with very hot water when there is tenderness or swelling of the glands, poultices, heating impermeable dressing, like oiled silk, spongiopiline, etc., are to his thinking worse than useless; inasmuch as while they do no good they are respectively so many additional sources of expense, trouble, and filth. *(Ibid.)*

IODIDE OF STARCH POULTICE.—To be applied to sloughing sores, etc. Take two ounces of starch and mix with six ounces of boiling water to form a jelly; then add, before cold, half an ounce of tincture of iodine. The poultice is now ready for use. *(Ibid.)*

TINCTURE OF ACTÆ RACEMOSA.—This American remedy is coming into general use in Great Britain. It is now prescribed for lumbago, sore throat, headache, to allay the cough of phthisis, to produce uterine contraction, suppressed menses, and in pleurodynia. It is a good anodyne. *(Ibid.)*

SCARLATINA.—A very useful remedy is found to be the following: the peroxide of hydrogen, in drachm doses, given in water, with the addition of ten drops of tincture of the perchloride of iron every three or four hours, for a lad say of sixteen years. If our patient is very much weakened, we allow a little whisky. In all cases the body is anointed daily with fresh lard. *(Ibid.)*

SYPHILIS.—We have found very few cases of secondary syphilis that have not yielded in a very satisfactory way to a combination of one eighth of a grain of perchloride of mercury, five to fifteen grains of iodide of potassium, and a scruple of chlorate of potash, taken three times a day, in some bitter infusion, such as gentian or quassia. The addition of the chlorate of potash appears to us to do more than merely prevent salivation. From a number of experiments with it we are convinced that it increases the efficacy of the mercury, so that a small dose produces a more decided effect when taken along with it. (Glasgow Medical Journal.)

TREATMENT OF SORE NIPPLES BY NITRATE OF SILVER.—Having gently but carefully dried the nipple, touch it freely with a sharp pencil of nitrate of silver. Be sure to insinuate the pencil into the chaps or chinks; then wash the nipple with a little warm milk and water. In most instances the pain, though smart at first, soon subsides, and a little simple ointment, or one made with the flowers of zinc, is all that is requisite to heal the sore. I occasionally wash the nipple with a saturated solution of borax before and after suckling the infant. Some suffer a great deal of pain from the application of the caustic; this must not be heeded. A draught containing an opiate, such as sol. mur. morph. thirty drops, soon brings relief, and the part is presently easier. Some require to be touched more than once—nay, several times; but each succeeding time it is less painful. I have heard of a solution of nitrate of silver being tried: I can positively assert that it is inferior to the solid caustic, both in relieving and healing these painful affections. (Medical Gazette.)

RAPID DILATATION OF THE URETHRA.—Dr. Alan P. Smith, of Baltimore, recently operated for stone in three females, aged respectively seven, twenty-two, and twenty-three years. He effected dilatation with a pair of dressing-forceps with narrow round blades, inserted into the urethra, and the blades gradually separated until the orifice admitted the extremity of the index finger. This was afterward used as the dilating power. In less than five minutes the finger passed freely into the bladder. In the girl the stone, which was found to be too large to pass, was grasped by a strong pair of forceps, broken, and extracted; the largest fragment measuring three and one fourth inches in circumference and weighing one hundred and forty grains. The urethra gradually recovered its tone and dimensions, and six weeks after the operation the patient had entirely recovered. In the second case the stone was extracted entire, and measured one inch and three quarters in its longest and an inch and a quarter in its shortest diameter. In two months she had perfect control over her bladder. In the third case a hair-pin formed at its looped extremity the nucleus of the stone, which measured in its longest diameter one inch and three quarters and its shortest one inch and a quarter. On the third day the patient had recovered entire control of the bladder, and on the fourth was walking about quite well. (Baltimore Medical Journal.)

ON THE TREATMENT OF SYPHILIS.—Dr. Farquharson, of Rugby, says that having been himself an advocate of the anti-mercurial treatment, his failures had finally led him to use mercury. The worst cases of syphilis which he had seen had been those in which either very little or no mercury had been given. When mercury is given it is necessary to administer good food, for he has seen once two calomel vapor-baths and several times three produce salivation in patients accidentally kept on a low diet; but when carefully administered he considered mercury as a tonic. Mercury should be given early in the disease; and, though beneficial when used endermically, he prefers its careful internal administration. He thinks that mercury postpones and lightens constitutional symptoms, and that chlorate of potassa has no influence upon syphilis. (British Medical Journal.)

Notes and Queries.

BROMIDE OF POTASSIUM IN HEADACHE—LARGE DOSES.—Dr. Wm. Commons, of Bradford, Ohio, sends the following: "I have been subject to severe sick-headache all my life, having inherited it from my mother. No treatment has ever given me relief except bromide of potassium in large doses. I began its use in 1862. At first took it in small and repeated doses, and always found the benefit from its use was in proportion to amount taken. I soon took it in larger doses; and now my plan is to take, in the commencement of an attack, *two drachms* of the bromide, dissolved in two table-spoonfuls of water; and if not immediately relieved, take one drachm more in ten minutes, and repeat in fifteen minutes if necessary. I have used the medicine in this way many times, and not in a single instance has it failed to give prompt and complete relief. The largest dose taken was half an ounce avoirdupois, dissolved in two ounces of water, and swallowed in twenty minutes, eight hours after eating, with complete relief from a more than usually bad spell."

CALOMEL AND DOVER'S POWDER IN CROUP.—Dr. John Long, of Pleasureville, Ky., writes that the treatment of croup recommended by Dr. Seaton in the American Practitioner has for many years past succeeded in his hands in relieving almost every case of that affection. He has never seen any good from emetics in the commencement of the disease. He first gives Dover's powder and minute doses of calomel at intervals, and then administers an emetic. The hoarseness that remains quickly yields to small quantities of Dover's powder.

SECONDARY FETUS.—Dr. A. Addams, of Cynthiana, Ky., communicates the following: "On the 20th of May last I was called to Mrs. J., in labor at term. After eight hours' labor the head of one child passed externally, and another head presented and was delivered; the bodies were then delivered simultaneously. The child first presenting was strong and healthy, and is still living; the second was dead, pale, almost exsanguinous; the cord was ruptured, and the head and body gave evidence of strong compression so as to be quite flattened. There was not the least sign of putrefaction." Dr. A. accompanies his communication with a ferreotype of the dead fetus. In examining it we are struck with the resemblance which it bears to a lithograph (plate 85, Ramsbotham's Obstetric Medicine and Surgery, fifth edition, London, 1867,) representing "a secondary fetus" from a preparation in the London Hospital Museum. We have no doubt that it is a similar case.

The following from Simpson's Obstetric Memoirs, vol. 1, page 313, will probably be sufficient to explain the peculiar phenomena which such a case presents: "When the fetus dies from the third month onward, in consequence either of disease in its own organization, in its umbilical cord, or in its placenta, and a second twin living fetus exists at the same time in utero, and this second fetus continues to grow, and keeps up a correspondence of development between the organ and its contents, the dead and undeveloped twin may be retained up to the full term of pregnancy, and be then born along with the other living and full-sized child. When the dead fetus is thus retained, it is preserved free from the decomposition usually following death by all access of air to it being prevented. Sometimes it retains its usual rounded appearance and form if it continues to be surrounded by a sufficient quantity of liquor amnii; but in other cases where this protecting medium of liquor amnii is defective the fetus becomes more and more squeezed between two forces; viz., the parietes of the uterus on one side of it, and the other living twin or its membranes on the opposite side, and at last, when born, it is found compressed and *flattened* in form. Two such flattened fetuses are in the University Museum, and many such cases are on record."

Twin Abortion.—Dr. James K. P. Erwin, of Prairie Bluff, Ala., writes us a history of a twin pregnancy; the patient losing one fetus at three months; the other at about four and a half. The first abortion was caused by a kick upon the abdomen; the second occurred without any obvious cause. There was no placenta with the first fetus, and the symptoms after the delivery of the latter seemed to indicate enlargement of the uterus from retention of coagula, and the patient was threatened with metritis; nevertheless she was up in two weeks, and at work the third week. Just forty-two days after the first miscarriage the second occurred. The patient made a good recovery. Such cases have been sometimes but erroneously regarded as instances of *superfetation.* Superfetation implies impregnation during the existence of pregnancy—a possibility which physiological investigation has proved; a fact which clinical histories in *some rare instances* have established as conclusively as a fact of this kind can be established. To this point we shall refer in a moment.

There is a practical point in reference to such cases as Dr. E. reports, and we can not present it better than in the language of one whose professional fame was equal if not superior to that of any man of the century, and whose recent death the whole world laments. Professor Simpson, after mentioning the case of a lady aborting of a fetus about the third month, going on in pregnancy to the full time and then being delivered of twins, having originally conceived of triplets, as a practical deduction lays down this rule, that when a dead fetus in its envelopes is expelled during the currency of pregnancy, and the uterus notwithstanding still remains large and apparently distended, its further contents should not be in any way interfered with, but rest and other means employed to avert the excitement of any additional uterine action, under the hope that a living twin may still be retained and carried onward to the full term of utero-gestation.

And now as to superfetation. Some of the cases in which this has been supposed to occur are explained by the existence of a double uterus. (See Noeggerath and Jacob's Contributions to Midwifery, page 159.) But there are other cases where this explanation fails. Dr. Matthews Duncan (Researches in Obstetrics, page 170) asserts that impregnation is not impossible up to some time about the third or fourth month. In a case of twin abortion—a fetus of between three and four months and a perfect ovum of four weeks—presented to the London Obstetrical Society, June, 1862, Dr. Priestly took the ground that it was an instance of superfetation. The specimen was then referred to Drs. George Harley and Tanner for examination, and they concluded their report in these words: "As theoretically we see no physical obstacle to the occurrence of superfetation during the first three months of pregnancy, we think the specimen now reported upon proves, so far as anything of the sort can prove, that superfetation is a positive fact."

NOTE.

For the information of those whose subscriptions begin with the second volume of our journal we make the following extract from the preface: "The American Practitioner is to be a journal of therapeutics. Excluding all theoretical discussions and all long details on every subject, it is our purpose to fill its pages with matter relating directly to the treatment of disease. We solicit short articles, giving as far as possible the personal experience of the writers at the bedside."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN

Original Communications.

ON THE SAFETY OF CHLOROFORM IN LABOR.

BY LUNSFORD P. YANDELL, M.D.

Anæsthetic medicine has been created since physicians who are still young entered their profession, and yet in these few years it has come to form an important department of therapeutics. A brief review of the steps by which it has suddenly attained such development can hardly prove uninteresting to any medical reader. As has so often been the case with discoveries before, this, which undoubtedly ranks among the most remarkable in medicine, was foretold many years before it came to light. Our countryman Rush, toward the close of the last century, declared that in his opinion pain was not a necessary accompaniment of child-bearing. He was convinced that it might be greatly alleviated by blood-letting, and he looked forward to the discovery of a remedy which should suspend sensibility, and thereby destroy labor pains altogether, without impairing the expulsive efforts of the uterus. And this prediction is entitled to the respect due to a scientific deduction, for it was founded upon facts. Rush had known an instance in which a woman, in a fit of drunkenness, gave birth to a child unconsciously, and without any recollection of pain; and a medical friend had informed him of a case in which a child was born under similar circumstances—the mother being in a fit of epilepsy.

About the time that Rush was publishing these prophecies in America, Beddoes was engaged in England with researches concerning the effect of gases upon pulmonary consumption. Humphrey Davy had just entered his pneumatic institution at Bristol, and engaged with zeal in the investigation. He made trial of the respirability of numerous gases, in the course of which he was near losing his valuable life by suffocation. Among others he inhaled the nitrous oxide gas, and became aware of its wonderful properties, which he published to the world in the year 1800. The exhilarating gas became thus at once an object of curious interest, and was inhaled by students in all the chemical laboratories of the world. No evil effects from it were recorded, but it was only inspired to the point of producing a transient ebriety, and never so far as to induce insensibility. In time it was discovered that the vapor of sulphuric ether inhaled brought about similar results; and, being more easily procured than the laughing-gas, it was breathed by great numbers of people for amusement, but not always without leaving unpleasant effects, more or less permanent, upon the brain.

While these experiments upon the nervous system with vapors and gases were going on, animal magnetism began again to attract attention. It was claimed by those who were experimenting with it that it had the power not only of exalting and perverting the senses, but of entirely annulling sensibility. Severe surgical operations, it was asserted, had been performed upon persons under its influence without any consciousness of pain. The statement was received with great incredulity by most scientific men, and perhaps by a majority of physicians it was wholly discredited; but the evidence upon which it rests is altogether too conclusive to admit a doubt of its truth. In that condition of the brain which has been variously termed by different writers the "biologized" or the "hypnotic" state, it can not be doubted that sensibility is suspended. It is a condition which can not be established in a large majority of persons, but when fully induced its subjects unquestionably exhibit a strange insensibility to external impressions. And the verification of this physiological fact was an important step in the progress of anæsthetics: for now two material truths had been ascertained; first, that vapors and gases might be inhaled with the effect of suddenly and powerfully rousing the nervous system; and secondly, that the nervous system might with safety be brought into a condition in which it took no cognizance of painful impressions.

At length, on the 10th of December, 1844, when the search after a reliable anæsthetic was at its keenest, and mesmerism seemed about to become respectable by showing how, at least in some instances, we might annihilate pain, Dr. Wells, of Hartford, Connecticut, had a tooth extracted without pain under the nitrous oxide. This was the first case in which the gas was proved to have the power of annulling sensibility. After having established its anæsthetic power, to a limited extent, by experiments with it upon others, Dr. Wells proceeded to Boston to publish his discovery; but the gas-bag having been removed too soon, his demonstration failed, and it has been said that he was hooted by the spectators of his experiment. Nevertheless he had hit upon an anæsthetic, and must always rank among those to whom the world is indebted for this great boon. Dr. Morton, his former pupil and partner, was present at his mortifying exhibition, and taking up the search at once was rewarded by a discovery the truth of which he soon demonstrated. On the 30th of September, 1846, he extracted a tooth without pain while the subject of the operation was under sulphuric ether. The novel procedure was repeated again and again, and uniformly with the same satisfactory results. Operations were performed by surgeons at the Massachusetts General Hospital, as well as in private practice, soon after these facts became known, and sulphuric ether proved itself an effectual anæsthetic. A thrifty Bostonian sought to make the discovery profitable by vending this fluid under the name of "letheon," with a bottle expressly devised for its inhalation.

The fame of such a discovery as this was not long spreading abroad. In a few weeks after its announcement in Boston the vapor of sulphuric ether was administered to patients in the London hospitals about to undergo surgical operations, and in a little while gained a currency there much greater than it had attained at home. Liston was one of the first London surgeons to make trial of the vapor, and he announced its triumph with enthusiasm. His joy at the discovery of an agent which enabled him to perform his operations without pain was unbounded; nor did he hesitate to avow that it was increased by the fact that he foresaw in it the discomfiture and overthrow of mesmerism.

In January, 1847, and the following spring months, the first experiments with ether were made in midwifery; and the credit of this application is due to the late lamented Simpson. Dubois, in Paris, pursued quickly in his footsteps, and probably without knowing that the great Scotch accoucheur was engaged in the investigation. Both were in haste to communicate the results of their experience to the world; and they were followed by Dr. Channing, of Boston, not many months afterward, who bore the same favorable testimony to the value of the anæsthetic in cases of labor. At last, on the 15th of November, 1847, it was ascertained by Sir James Y. Simpson that chloroform, which had been for many years known to chemists, was capable of producing all the effects of sulphuric ether upon the animal system, and that it induced them more speedily and when inhaled in less quantity. The new agent swiftly superseded sulphuric ether, and in a little while became the anæsthetic of the world; though Boston generally clings to the ether, and a few practitioners elsewhere still profess to regard it as safer than chloroform.

A few weeks after the discovery of the new anæsthetic was announced by Sir James Y. Simpson, a notice of it was sent to the Western Journal of Medicine by its foreign correspondent, Dr. D. W. Yandell, then in Paris, and very soon afterward it was introduced into Louisville. I prepared an impure fluid in the laboratory of the University of Louisville, and inhaled the vapor, being perhaps the first person in this city to experiment with it. It was not long getting into the hands of our surgeons and accoucheurs; but two parties existing in the profession here, as is usual, the fact that it was adopted by one seemed to be a sufficient reason why it should be rejected by the other, and anæsthetics for a time encountered strenuous opposition. At the end of their second year, in fact, so powerful was the evidence which the enemy had been able to collect against them that one of the most spirited of their writers boldly proclaimed in the public prints, "Etherization is on its last legs."

How vain is human prophecy! How short the distance penetrated by the most sagacious into the future! What does this writer himself now probably think of his bold prediction? "Etherization on its last legs?" Nay, if the profession had become convinced that its dangers were far greater than they are admitted to be, and that anæsthetics ought to be abandoned altogether, what would be the prospect of bringing our patients to this belief? But this brings me to one of the gravest questions connected with my subject — the actual danger of anæsthetics.

No one would be bold enough to deny that this is real. The inhalation of ether was followed before a great while by deaths, and these were rapidly multiplied after the introduction of chloroform. They have become very numerous. It is the opinion of some observers that they are even on the increase; but facts do not bear out this conclusion. At Boston, where sulphuric ether started, there are physicians so apprehensive of the perils of chloroform that they would have its use prohibited by law. Physicians elsewhere have expressed the opinion that so great a mortality as has attended it would have led to the rejection of any other article of the materia medica. Writers have been laboring on the mortuary statistics of etherization with a view to determine the rate of mortality. The highest set down is about one in two thousand. By others it is placed at one in three thousand five hundred. Dr. Snow collected the history of four thousand cases in which chloroform was administered without a single death; and in eight London hospitals it was given seventeen thousand times before a fatal case occurred. But in the very same hospitals afterward six deaths attended its administration in seven thousand five hundred cases. In the hospitals of England eleven deaths resulted from its use in thirty-five thousand one hundred and sixty-two cases. While in one hospital it was given fifteen hundred and seventy-five times without a death, in another, where it was handled with the same care, it was given only five hundred and twenty-five times before a death resulted. That the casualties attending chloroform very far exceed those from sulphuric ether is what would be expected from its almost universal administration, even if it were not a more powerful agent. But deaths enough have been caused by ether to show that it is by no means devoid of danger.

Can the danger from anæsthetics be foreseen and obviated? It would save many lives if there were conditions of the system which could be recognized as incompatible with their safe employment; but unfortunately, after more than twenty years' experience, we can not lay claim to any such knowledge. We do not with certainty know any state of the economy which would justify us in saying, with confidence beforehand, that the inhalation of one of these vapors would or would not be attended with hazard. Dr. Benjamin W. Richardson thinks the risk is increased in subjects "with a weakened and dilated right side of the heart," indicated by "enlarged hemorrhoidal veins, varicose veins of the lower extremities, and large, full, yet not tense veins of the other parts of the body." In one such case he declined to give chloroform, and the patient died under it in the hands of another physician. But while we may admit the value of this criterion when found, we can not shut our eyes to the fact that persons of the stoutest bodies and apparently in the most perfect health have sometimes been killed by it, at the same time that it has been administered with safety to the subjects of almost all forms of disease.

The fatal issue in such cases has been ascribed to a full stomach, but certainly on very insufficient grounds. It is desirable that the stomach should be empty when one is about to inhale chloroform; but there is nothing to justify the supposition that carelessness in that respect has added materially, if at all, to the deaths chargeable to anæsthetics. The manner of administering them was at one time deemed a matter of great importance, and instruments were contrived by which the quantity given might be accurately regulated; but all these have been laid aside as valueless, and only the simplest methods now obtain. The aim of the operator is to bring the patient under the influence, which he is to do cautiously, watching the state of the pulse and breathing till the effect is induced. Deaths from anæsthetics have not borne any steady proportion to the mode of administration. As many have occurred with instruments as when the fluid was simply poured upon a napkin; and it is the opinion of many that the danger is even increased by the more complicated methods.

Idiosyncrasy has been called in to account for the inexplicable deaths that have occasionally taken place under anæsthetics. Inexplicable some of these unquestionably are in the present state of our knowledge. Some have taken place suddenly, after a few inspirations. Of the fifty fatal cases collected by Dr. Snow death occurred in nine within a minute after the first inhalation, and in four of the cases within a few seconds; and this can not be attributed to idiosyncrasy, for some of the victims had previously inhaled chloroform with impunity. These sudden deaths have been plausibly ascribed to spasm of the air-passages, arresting respiration, and with it the circulation of the blood.

Posture perhaps has had more to do with the fatal results of anæsthesia than any other circumstance, if we leave out of view that unknown peculiarity of system which in some instances renders it wholly intolerant of the narcotic vapor; but, though this may have occasionally determined the unfortunate issue, it can not by any means be held responsible for most of the casualties. It may explain, in part, why the deaths in trivial operations have been out of proportion to those which have attended the great operations of the surgeon, and why a much larger number proportionally have occurred in dentistry than in surgery. But enough patients have died in the recumbent position to show that we can not look to posture alone for safety.

To sum up, it may be said that the subjects that have died of anæsthetics embrace both sexes, and young and most healthy persons as well as old; that death has overtaken them in all postures, after exceedingly minute quantities as well as when the system was saturated by the vapor; on a full and on an empty stomach; and from sulphuric ether as well as from chloroform administered by all possible methods. But of all their victims not one, it is believed, has been a parturient woman. This of all the facts in the history of anæsthesia is the most remarkable, and to my mind far the most interesting. People have died inhaling chloroform for amusement, and for the relief of trivial pain. They have died in the dentist's chair, and on the surgeon's table; but no woman in labor is known to have died from any anæsthetic.

In a few months after the discovery of sulphuric ether as an anæsthetic was made known, it was introduced into obstetrical practice, and chloroform followed it in less than a year. They have been in very extensive use in all parts of the civilized world for now more than twenty-two years, and in that time not a single death in midwifery has been recorded from either in any medical print. It is not to be believed that one such death has taken place, for if it had it is hardly possible that it could have been concealed. This extraordinary result may be due in part to the posture in which anæsthetics are taken by women in labor—the one of all others most favorable to their safe administration. It is no doubt largely due to the slow and cautious manner in which the patients are brought under their influence, there being in these cases no temptation to haste, and the feelings of the patient being taken somewhat as a guide. Generally too the impression sought to be produced is not so profound. But all these circumstances hardly explain the unvarying safety with which they have been used for so long a time in midwifery, and we are left to conclude that there may be something in the process of parturition itself which reconciles the system to their admission. Anyhow, whether we are able to explain this exemption from danger in such cases or not, the fact takes away all excuse for refusing them to this large class of sufferers; and that is the point of the present article.

A strange prejudice has prevailed in this country against the employment of anæsthetics in midwifery. It is by no means the common practice of the country yet to administer them. Among my medical friends in this city a distrust in regard to them is still felt, which I have been surprised to discover. Many of them have assured me that they resort to them with "a wholesome dread," and others decline to use them altogether.

Now, if they have been extensively employed for more than twenty-two years by practitioners all over the world, without a single casualty in child-birth, while we should not be justified from this success in asserting that they are unattended by danger, we are obliged to admit that the danger is reduced by it to the minimum. In all this time, if any but the most trifling risk attended the practice, some unfortunate constitution must have been encountered in which death would have followed it. Such being its safety then, ought not the practice to become universal? Such is my conviction. We have no right as a profession, according to my views of duty, to withhold from the suffering such an antidote to pain. It is not in this way that we act in other cases. We prescribe for headache, for colic, and for numberless other affections, self-limited in their nature, simply to relieve the pain. But in none of them is the distress greater than it is in labor. Indeed, if we may take the testimony of those who endure it, that which is experienced by women in travail often amounts to torture. It was in the hope that my experience might avail something toward the removal of an unfounded prejudice against chloroform, and thereby save lying-in women a vast amount of unnecessary suffering, that I set about this paper.

From the first, I have been in the habit of administering chloroform in every case of labor in which my patient was inclined to its use. Not unfrequently the pains have been too slight or the labor too soon over to require it; but in slow cases I have often urged reluctant women to take it under the persuasion that it would accelerate the process. My observation has been that it destroys sensibility without affecting irritability, to use Rush's language, and that the contractions continue unimpaired, while the patient is unconscious of pain. I am not sure that I ever saw the expulsive efforts diminished by it, and am quite certain that I never saw them arrested by the largest doses. We know how liable labor-pains are to intermit, and I can not help thinking that the abatement complained of by practitioners as sometimes resulting from chloroform has been due to some other cause.

Having given it in all cases where desired by the patient, it follows that I have not had much regard to the state of her health; and the fact is that I ask no questions about the condition of the brain, heart, or lungs, the organs supposed to be especially endangered by it. In those dilatations of the heart referred to by Dr. Richardson, it might be hazardous to inhale it, though even then I should not hesitate to administer it to a woman in a difficult labor.

When I began to use it I was more cautious in its administration than I am now, and seldom pushed it so far as to destroy sensibility and consciousness. It was felt by the patient to be a vast relief to have the pains so far blunted that, though conscious of their presence, she could endure them with patience. But with longer practice I have come to feel greater security in its employment, and now often see it inhaled until my patients are wholly insensible of pain and unconscious of the birth of the child. It is not a rare occurrence for the mother ,to wake up and inquire, "Whose baby is that I hear crying?"

This statement is not made to recommend the practice. There is no reason why the anæsthesia should be rendered so perfect; but the facts stated show that even this prodigal use of the anæsthetic is not attended by any bad effects.

I give chloroform always. It is claimed for sulphuric ether that it is safer; but an agent which has been so long and so largely in use as chloroform, without doing mischief in such cases, ought, one would think, to be deemed safe enough. The inhalation of ether is disagreeable; its effects are slower than those of chloroform, and a larger quantity is required to produce the desired effect. These objections have prevailed against the single advantage of greater safety, and caused it to be deliberately laid aside in nearly every part of the world.

It is my practice to withhold the anæsthetic until labor has reached the second stage of Denman, the pain up to that point in most cases not being sufficiently acute to demand it; but when the suffering is severe I can see no good reason why it should not be permitted at an earlier stage. Chloroform may be inhaled for a great length of time without injury. I once saw the inhalations kept up for nearly three weeks without intermission, in a tetanoid case, and the patient recovered fully, experiencing no bad effects from the long-continued action of the remedy. But it is as labor approaches its termination that the agent exerts its happiest influence, annihilating the pain when it is most insupportable, and at the same time assisting in the process by relaxing the muscles of the perineum.

Most women experience some irritation on attempting to inspire the vapor for the first time, and are apt to put the napkin aside. This delay causes the narcotic impression to be made slowly, and adds to the safety of the operation, obviating among other dangers that of spasm of the air-passages, which is believed to have been the cause of death in some instances in which it occurred quickly after a few forced inspirations. In midwifery there is ample time for inducing anæsthesia in the most gradual manner, and we act wisely in being guided by the sensations of our patients. Giving it at the recurrence of the pains, and then laying it aside in the intervals, the blood becomes slowly saturated with the vapor; and if any latent trouble should be lurking in the system, this method of feeling our way would be likely to develop it in time to guard against it.

It has been alleged by some practitioners that the tendency to hemorrhage is increased by chloroform, and that they have found cases of asphyxia in the child more frequent since its introduction. I can only say that such has not been my experience. Post partum hemorrhage, to a serious extent, continues to be a rare accident in my practice after anæsthetic inhalation, as it was in the old days before this "meddlesome midwifery" was adopted; and as to the still-born, I am sure that I have not found the number greater than it was when mothers were left to bring forth their children in unalleviated "sorrow." So far from encompassing the lying-in chamber with additional perils, I have thought that women made quicker and better recoveries after taking chloroform; that they are brighter for escaping the pangs of child-birth, and rally sooner. It so happens that since this practice was instituted I have met with just three cases of puerperal convulsions, and that they were all in patients of other physicians, and all in women who had not inhaled chloroform. It would be very hasty certainly to conclude from these instances that this frightful disease may be warded off by anæsthetics; but the coincidence, to say the least of it, is noteworthy, and the more because of the well-known power of chloroform over convulsive affections. If convulsions supervene in labor we hasten to administer chloroform. We resort to this remedy at once in the convulsions of children. Why may it not tend to prevent them in parturient women by its soothing influence upon the nervous centers?

But it was no part of my design in this article to enter into speculative discussions, and it is time it was brought to a close. To those who, like the writer, have had long and favorable experience with chloroform—in whose hands, as in his, it has proved in midwifery an unmixed blessing—the present will appear an unnecessary labor. But to the young practitioner, who has not yet fully made up his mind as to its safety, and resorts to it still with misgivings, this testimony can hardly be unacceptable; and with that large and influential class of doubters who reject it altogether, or give it only at the urgent solicitation of their patients, it is hoped it will have some convincing force. I can not help thinking that it is time this distrust of chloroform in obstetric practice had ceased, seeing it has not a particle of evidence to justify it; and I hold that we sin against our profession as well as humanity when we decline to apply so safe a remedy for tortures which their subjects have sometimes compared to "the torments of hell." I confess that when I have heard women under the anæsthetic reproaching former medical attendants with cowardice for refusing them this solace in their anguish, I have felt that their reproaches were just. It ought, in my opinion, to be laid down as an axiom in obstetrics that every case of painful labor is a case for chloroform.

LOUISVILLE.

A CASE OF TETANUS TREATED BY CALABAR BEAN AND HYDRATE OF CHLORAL.

BY PRESTON PETER, M.D.

On the 4th of March last, P. C., aged thirty years, thrust a nail into the left foot, about one inch in depth, and near the center of the plantar surface. An anodyne lotion locally, with a little morphine internally, soon gave relief; the wound suppurated and healed in the course of ten days, and he went to work again. Experiencing some stiffness of his limbs, he quit work at the end of the first day.

March 18th, fourteen days after the injury, I saw the patient at ten A. M., and found him complaining of stiff legs, shoulders, neck, and jaws; he could open his mouth only wide enough to admit the tip of his tongue, which was heavily furred, and red around the edges; pulse eighty; skin feverish; bowels confined. Ordered a full dose of blue mass, with extract of hyoscyamus, to be followed by sulphate of magnesia; and, after the bowels are moved, a half grain of morphia, to be taken every two hours until quiet or asleep.

19th, nine A. M. The patient had rested well through the night, and slept from midnight till day; bowels had acted well; but the other symptoms were unchanged, except stiffness had increased, and there was slight opisthotonus. Ordered a half grain of the extract of Calabar bean to be given internally every three hours, which was kept up through the day, with the effect of producing slight nausea and vomiting and active purging, but no perceptible contraction of the pupils. At eight o'clock P. M., directed thirty grains of hydrate of chloral every half hour till asleep.

20th, eight A. M. All the above symptoms continued without material change; had slept three or four hours in the latter part of the night; did not get full doses of the chloral; Calabar bean continued as before. The purging continuing, gave a grain of opium every two hours to control it, which two doses sufficed to do. In the afternoon I noticed slight twitching of the muscles, when I directed the Calabar bean to be given every two hours, and the chloral in thirty-grain doses as before.

21st, eight A. M. Patient had slept part of the night, at short intervals; pulse eighty to ninety, and a little irregular; nausea and vomiting had ceased, but tetanic symptoms were plainly on the increase. Continued extract of the bean in half-grain doses, every two hours, with partial muscular relaxation but no contraction of the pupils. At eight P. M., symptoms of convulsions being present, ordered a preparation of the bean for hypodermic use. On returning at ten o'clock found the friends of the patient had interfered and the medicine had not been obtained. I contented myself for the night with the internal use of the bean, increased to a grain every two hours, and continued the chloral.

22d, eight A. M. Patient had a restless night, with little sleep, and that interrupted. At half past nine o'clock A. M., got the following preparation: Extract of Calabar bean, six grains; bicarbonate of potash, one grain; distilled water, one drachm. Mix and filter. (Ten minims represent one grain.) Of this solution I injected five drops into the arm. In twenty minutes it had produced marked relaxation of all the muscles, and the patient could for the first time freely protrude his tongue; there was slight contraction of the pupils. In three hours all the symptoms had returned. I now injected three fourths of a grain with the same strikingly good result which had followed the first injection; and as the effects of the medicine seemed to last but about two hours and a half, the injections were repeated, increasing one fourth of a grain of the bean with each successive one, until ten P. M., when the quantity used had reached two grains at a dose. The system was now fully relaxed. Up to this time the relaxation was marked, and spasms had been fully controlled, but it was not until the bean had been given in a two-grain dose that the relaxation of all the muscles involved was complete.

23d. Was called up at four A. M. Patient suffered more severely from muscular contractions; he had gone six hours without an injection, but had taken two or three doses of the bean internally without effect. At four A. M., injected a grain and a half, with prompt relief, but without thoroughly relaxing muscular contraction; the opisthotonus particularly remained. The injections were kept up through the day, at intervals of two and a half to three hours, with from one to one grain and a half at each injection, and with about the same effect as the day before; the opisthotonus was perceptibly diminished, and the patient always expressed himself as greatly relieved in from fifteen to twenty minutes after each injection; could open his mouth fully an inch, and took fluid food, in the form of beef-tea, gruel, and milk-punch, without difficulty. At nine P. M., injected one and three fourth grains of the bean, and directed it to be followed by fifty grains of chloral every half hour till he slept. He took two doses of the latter without any appreciable benefit, more than to produce a sort of dreamy state, and refused any more.

24th. Was called up at five A. M., and found patient had suffered severely since one A. M. with muscular contractions or jerkings, of which he had a great number in the latter part of the night; he was much exhausted. An injection of twenty drops of the solution gave almost immediate relief. Spasms returned in about three hours; a repetition of the injection was again successful. The injections were continued through the day at intervals of about three hours, the quantity of the solution used being gradually increased until thirty drops were given, when relaxation was again complete, save a very slight opisthotonus. I remained with the patient all night, repeating the injection at regular intervals.

Early in the morning of the 25th the opisthotonus had pretty well disappeared, there was freer motion of the neck, and the trismus did not occur even when the spasms would return; the whole muscular system was more generally relaxed. The patient took soup, beef-tea, gruel, milk-punch, etc., well in the latter part of the night, and as freely as was desired. About six A. M., his pulse rose from one hundred and twenty to one hundred and forty, and became irregular; the pupils grew much contracted; and the spasms recurred with greater violence, sometimes threatening to overwhelm the patient. By ten A. M., the pulse grew more quiet, and fell occasionally to ninety, but more frequently it beat one hundred and twenty; bowels again became loose, and once or twice during the morning moved involuntarily. The patient having had no real sleep for three days and nights, I determined to take advantage of the relaxation which followed an injection of thirty drops of the solution, and administer chloroform. In fifteen minutes after he began the anæsthetic he fell asleep, and with an occasional inhalation slept well for two hours; when he awoke he showed symptoms of spasm. An injection of ten drops and a repetition of the chloroform secured two other hours of quiet sleep. The injections, of the strength of a grain to a grain and a half of the bean, were continued at regular intervals until midnight. They exerted almost complete control over the entire muscular system. The patient took his food and stimulants without difficulty. Soon after twelve o'clock he began to sink, and died from exhaustion at six A. M. of the 26th, eight days after tetanus set in. He had neither spasms nor contractions of any of the muscles for six or eight hours before death.

I think it not improbable that had the Calabar bean been resorted to at an earlier period of the attack, the final result of the case might have been different.

LOUISVILLE.

A CASE OF TETANUS TREATED BY CALABAR BEAN.

BY EDWARD RICHARDSON, M.D.

John M., a robust man, aged thirty-one years, was run over by a street-car, on the 3d of December, 1869, receiving the following injuries: a lacerated wound, between three and four inches in length, on the outer aspect of the left knee-joint; also a lacerated wound on the inside of the left calf, of about the same dimensions, with a considerable contusion of the limb.

On the night of the 13th, ten days after the injury, I was asked by my student, Mr. Henry Cochran, under whose care the patient had been placed, to see him, as he had suspicious symptoms. I found the patient complaining of some stiffness about the jaws and wakefulness. The wounds were in every respect looking as well as could be desired; pulse was one hundred and six; temperature one hundred and four degrees; body covered with perspiration. Gave a quarter grain of morphia hypodermically.

December 14th. Patient slept well during the night; little or no stiffness about the jaws; opened his mouth without difficulty; appetite good; pulse one hundred and six; otherwise as at last visit. Eight P. M.: increased stiffness about the jaws; more restless and anxious: injected a third of a grain of morphia subcutaneously.

December 15th. Patient rested tolerably well during the night; increased rigidity of the jaws; not able to open the mouth over half an inch; complained of stiffness in the back of his neck; body bathed in perspiration; pulse one hundred and twelve. Gave Fleming's aconite tincture, two drops, every second hour. Seven P. M.: pulse one hundred and twenty; perspiration less; temperature increased to the hand; jaws more fixed than at last visit; complained of shooting pain in the injured limb; wounds looking well: aconite to be continued, and increased one drop every third hour; also one fourth grain of morphia hypodermically at ten o'clock. Half-past ten P. M.: pulse one hundred and twenty; general condition much as last visit; had taken the morphia as prescribed.

December 16th, half-past eight A. M. Patient very much as last night; had great thirst, and complained that he did not sleep; jaws almost immovable; little or no inclination for food since yesterday; considerable difficulty in swallowing; head drawn slightly backward; pulse one hundred and twenty, but regular; bowels not moved for forty-eight hours. The aconite tincture had been given every third hour during the night, six drops being given at eight A. M. Prescribed the extract of Calabar bean, one fourth grain, hypodermically. The patient had been taking quinine and milk-punch, which were continued. Castor-oil, to move his bowels. Eleven A. M.: symptoms unchanged; pulse one hundred and fifteen: gave

Calabar extract, one fourth grain, hypodermically. Two P. M.: pulse one hundred and twelve; general symptoms about the same: gave extract of Calabar bean, one-fourth grain, hypodermically. Five P. M.: increased thirst; pulse one hundred and twelve; complained of more pain in the injured limb: wounds looking well, except at the lower angle of the one over the joint, which indicated at this point renewed sloughing; poultice ordered to this wound, and dry lint-dressing continued on the other: the bowels had acted: gave extract of Calabar bean, one half grain, by the mouth. Seven P. M.: pulse one hundred and fifteen; great deal of thirst; swallowed, but with some difficulty; much troubled with stringy mucus in the throat, which he expectorated with difficulty: gave extract of Calabar bean, one grain, by the mouth. Nine P. M.: His jaws were sufficiently relaxed to introduce the forefinger between the teeth; pulse one hundred and twenty; pupil very much contracted; great anxiety; and increased mucous secretion in the throat, which greatly annoyed the patient: ordered the extract of Calabar bean, one grain, by the mouth. Eleven P. M.: patient's condition was about as at my last visit; wakefulness; great thirst: one third grain of morphia, given hypodermically, and one half grain of extract of Calabar bean, by the mouth, and one grain ordered to be given at two o'clock in the morning.

December 17th, eight A. M. Pulse one hundred and ten; pupil not so much contracted; head a little more drawn back. Gave the extract of Calabar bean, one grain, by the mouth. Half-past ten A. M.: condition same: gave one grain of the extract of Calabar bean by the mouth. Half-past twelve P. M.: condition same, except a little better control over the jaws; pupil more contracted: ordered the extract of Calabar bean, one grain, by the mouth. Three P. M.: the patient's jaws opened better, and more relaxation about the muscles of the neck; pulse one hundred and two; pupils very much contracted; he swallowed more freely, and was generally more comfortable; said that since the last dose of the bean he had a sensation of sinking: ordered one grain of the extract of Calabar bean, given by the mouth, at four P. M. Six P. M.: about the same; constant hawking to relieve himself of the stringy mucus in his throat; still complained of shooting-pain in his leg, with a great deal of spasmodic jerking of the same: ordered the wounds to be cauterized with nitrate of silver, then used warm-water dressing and oil silk, and directed one grain of Calabar bean to be given by the mouth. Eight P. M.: the pulse was one hundred and twenty; jaws could be opened about three fourths of an inch; pupils were very much contracted; severe darting pains in the leg: one eightieth of a grain of atropia hypodermically. Ten P. M.: pulse one hundred and twenty; spasms occurred occasionally; muscles of the abdomen rigid: one eightieth of a grain of atropia hypodermically. Half-past eleven P. M.: pupils more dilated; increased pain in the limb: one half grain of morphia hypodermically.

December 18th, three A. M. The symptoms were aggravated; patient's pulse was one hundred and sixty-five; his body was bathed in perspiration; jaws closed and immovable; the head was drawn more back; spasm occurred every fifteen minutes, and was excited by moving or attempting to swallow: ordered atropine, one one-hundred-and-twentieth of a grain, hypodermically. Eight A. M.: patient greatly exhausted; pulse one hundred and thirty, and very small; spasms frequent; increased rigidity of the abdominal muscles and entire inability to swallow: extract of Calabar bean, one half grain, hypodermically, and injections of whisky and beef-tea per anum. Half-past eleven A. M.: pulse was one hundred and twenty; opened his jaws very slightly; complained of less pain in the limb: extract of Calabar bean, one half grain, hppodermically. Half-past one P. M.: pupils dilated; other symptoms much the same: extract of Calabar bean, one half grain, hypodermically; beef-tea and whisky injections continued. Four P. M.: patient more quiet; could open his jaws about one fourth of an inch;

did not complain of so much pain in the limb; pulse was one hundred and twenty; pupil a great deal contracted; refused food, and took water with difficulty: extract of Calabar bean, one half grain, hypodermically. Half-past six P. M.: pulse one hundred and twenty, soft and regular; abdominal muscles not so tense; other symptoms as at last visit; had taken a pint of good beef-tea by the mouth: extract Calabar bean, one half grain, hypodermically. Nine P. M.: much the same; pulse one hundred and twenty; pupils tolerably well contracted; frequent spasmodic jerking of the injured limb; considerable thirst; took water well; had an action on the bowels: extract Calabar bean, one half grain, hypodermically; one half grain of morphia at twelve o'clock, and one grain of the extract of Calabar bean, by the mouth, at three o'clock in the morning.

December 19th, nine A. M. Spent a restless night; spasms more frequent, especially affecting the left side; left leg and arm flexed, and very rigid; jaws entirely closed; pupil about natural; pulse one hundred and twenty-five; had taken no nourishment during the night. Ordered the extract of Calabar bean, one and a half grains, hypodermically; milk, egg, and whisky per anum. Half-past eleven A. M.: pulse one hundred and twenty-five; arm and leg more flexible; not so much rigidness generally in the muscles: extract of Calabar bean, one half grain, hypodermically. Two P. M.: pulse one hundred and twenty; pupils well contracted; more general relaxation of the muscles; nervous twitching and starting of the injured limb: extract of Calabar bean, three fourths of a grain, hypodermically. Half-past six P. M.: pulse was one hundred and twenty-five; pupils more contracted; a great deal of jerking and twitching of the injured limb; complained of feeling very hot: gave extract of Calabar bean, one half grain, hypodermically. Ten P. M.: pulse one hundred and twenty; general symptoms unchanged; has taken some nourishment by the mouth; is restless, and disinclined to sleep: ordered extract of Calabar bean, one half grain, hypodermically, and two drachms of the tincture of hyoscyamus to be given at twelve o'clock, if he should continue restless.

December 20th, eight A. M. Found the patient sleeping, which he had done during the latter part of the night; had taken milk freely during the night. Eleven A. M.: patient was still sleeping; complained of nothing but stiffness of jaws; pulse one hundred and twenty-five. One P. M.: patient had been sleeping ever since last visit; slept with mouth well open, but when awake was able to control his jaws but slightly; pulse one hundred and twenty-eight. Half-past four P. M.: much the same; had been sleeping quietly, with his mouth wide open; was easily aroused, and disinclined to be disturbed; called for water when awake, but refused to swallow it, the effort producing spasm; pulse one hundred and thirty: ordered extract of Calabar bean, one half grain, hypodermically. Half-past seven P. M.: was much the same as at last visit; pulse one hundred and twenty; twitching and jerking in the injured leg; opened his jaws about three fourths of an inch; general muscular relaxation: extract of Calabar bean, one half grain, hypodermically. Half-past ten P. M.: increased restlessness and spasmodic jerking of the leg: extract of Calabar bean, one half grain, hypodermically.

December 21st, half-past eight A. M. Patient was more anxious and restless; more rigidity of the muscles of the left arm, leg, and abdomen; more inability to open the jaws; pulse one hundred and fifteen; wounds too dry: ordered the extract of Calabar bean, one half grain, hypodermically; the enema of whisky, egg, and beef-tea to be continued. Half-past eleven A. M.: pulse one hundred and twenty-five, and more feeble; temperature one hundred and two degrees; more nervous jerking of the injured limb, and a good deal of rigidness of the abdominal muscles: extract of the Calabar bean, three fourths of a grain, hypodermically. One P. M.: increased spasmodic twitching and jerking of the injured limb; pulse one hundred and thirty, smaller and more compressible; patient more listless. Death at four P. M., eight days after the tetanic symptoms set in, and eighteen days after the reception of the injury.

LOUISVILLE.

[The cases reported by Drs. Peter and Richardson serve to establish that the Calabar bean possesses at least some power in relaxing muscular rigidity and subduing spasms in tetanus. In both cases the drug was given in quantities which are exceedingly small in comparison with those recently administered by Dr. Eben Watson; yet in Dr. Peter's patient the effect was almost uniformly decided, and lasted a considerable time. In Dr. Peter's hands the bean seemed finally to lose its effect when exhibited by the mouth, and to be invariably potent when taken subcutaneously. Dr. Richardson also used it hypodermically with good results. Yet Dr. Watson, who has had more experience with the medicine than any other writer, says that when administered subcutaneously its effects are neither reliable nor decided.

Other cases of tetanus have been treated in this city, by the same agents used by Drs. Peter and Richardson, with a like result; but, as the purpose of the present remarks is to substantiate certain statements made in the August number of this journal, we hasten on.

The reports of four hundred and fifteen cases of tetanus have been tabulated and examined by my friend Dr. R. O. Cowling. Of these three hundred and eighty-five have been obtained from periodical literature, foreign and domestic, while the remaining thirty have been furnished from the unpublished experience of medical friends in this city. A tabular view of so many cases would far exceed my prescribed limits; results only will therefore be given.

Of the whole number reported two hundred and thirty-three recovered; one hundred and eighty-two died. For purposes of comparison these results are certainly worthless; but they serve to show how very imperfect statistics are upon this point — as much so now as when Mr. Curling's tables were published in 1837. The reason is, I think, obvious — recoveries only, as a general rule, are published — deaths not being considered a matter of interest. For instance, of the unpublished cases occurring in this city ninety per cent. died, or but three in thirty recovered. Of these one received no treatment except nourishment; the second was cured by a Thompsonian with lobelia and steam; while the third can not justly be said to have been a case of tetanus — slight trismus, which yielded after a few injections of atropia, being the only symptom. We can affirm, from the character of the practitioners who treated these cases, that all was done that skill and patience could effect; the fearful percentage of deaths that marked the results simply belongs to the history of the disease. But while these tables are valueless as to aggregate deaths and cures, and are of not much more value as indices of the comparative efficacy of different remedies, yet in some important respects they certainly serve to throw light on tetanus. They illustrate somewhat the influence of sex and age, the situation and character of the wounds followed by tetanus, the date of invasion, and the duration of the tetanic symptoms; on all which points they contain facts well worth remembering.

Sex was stated in three hundred and seventy-five cases; eighty per cent. were males. This disparity may be accounted for by the greater exposure of men to the exciting causes of tetanus; yet in thirty-four cases of idiopathic tetanus seventy per cent. were males. Among the male cases forty-four per cent. were recoveries; among the female cases fifty-eight per cent., or, excluding the cases of puerperal tetanus, sixty-three per cent. were recoveries. These results approximate to those given by Mr. Curling, but not with those stated by Mr. Poland (Holmes's System of Surgery), who gives a far greater preponderance of male cases, and female deaths. Seven per cent. of the cases occurred in children under ten years of age; twenty per cent. between the ages of ten and twenty years. Fifty-two of the cases being reported as adults, the percentage of the succeeding decades can not be made out. After fifty years fifteen cases are recorded; a single case at eighty-nine is reported. Sixty-two per cent. of the cases under ten years died. Between ten and twenty years the mortality fell to thirty-eight per cent., while in the general result forty-six per cent. died. If we assume that so striking a difference in such large numbers of cases is not a coincident result, it would serve to show that while tetanus occurs comparatively but seldom in persons below ten years of age, it is peculiarly fatal at that period of life — a fatality which would be immensely augmented if we added to the list the vast number of fatal cases of trismus nascentium. Prognosis, so far as it is influenced by age, seems to be most favorable between the years of ten and twenty, and least so in the first decade of life.

The tables confirm what is already known in reference to the character of the wounds which are followed by tetanus; namely, that they are of every character, stage, or condition. Punctured wounds and wounds of the extremities still rank first in this class of injuries. The popular idea has been that, as a cause of tetanus, injuries of the foot were far in excess of lesions elsewhere. The tables sustain this opinion as to punctured wounds of the foot; the majority of such injuries being caused by nails run into the foot. Yet of the whole number of cases there were but eighty-eight wounds of the foot against ninety cases of injuries about the hand. The tables embrace twenty-eight cases of wounds in the upper extremity, exclusive of the hand, and sixty-seven in the lower extremity, exclusive of the foot. Twenty cases arose from wounds about the head; four from injuries of the trunk; one from chancre; one from abrasion of the cornea;

and ten followed abortion. As elements of prognosis, neither the situation nor character of the wound appears to be of any weight. Forty per cent. of deaths followed injuries of the hand, and forty-four per cent. injuries of the foot. It is worthy of remark that the deaths in puerperal tetanus rose to ninety per cent.

Date of Invasion. A more important consideration than either of the preceding is the time at which tetanic symptoms first show themselves. In one hundred and ninety-six cases the disease came on within two weeks after the injury; of these sixty-two and a half per cent. died. From the fourteenth to the twenty-first day, inclusive, there were eighty-one cases, with seventeen per cent. of deaths; from the twenty-first to the forty-fourth day there were seventeen cases, with three deaths—about seventeen per cent. In cases occurring within the first three days after the injury, recoveries exceeded deaths as fourteen to eleven; in cases occurring from the fourth to the ninth day, inclusive, deaths exceeded recoveries as seventy-three to thirty-three—sixty-nine per cent.; in cases beginning on the thirteenth day deaths stood to recoveries as seven to three; but where the disease set in on the fourteenth day, recoveries were notably in excess of deaths—twenty to three.

It is a source of regret that in more than one fourth of all the cases the date of invasion is not given; but it has been recorded in a sufficient number to show both the difference between acute and chronic tetanus—the difference between the percentages themselves—and finally, how these differ from the standard of forty-six per cent. of total deaths. It is true that the date of invasion is not the only element of dissimilarity between acute and chronic tetanus, but it is an important one; the degree of tetanic symptoms, the muscles involved, pulse, temperature, etc., are others which should not be lost sight of, but which our tables do not show in sufficient fullness to warrant even an approximate conclusion.

Duration of Symptoms. The well-known aphorism of Hippocrates, that tetanus is nearly always fatal within four days after it sets in, is well sustained by these tables. Sir Thomas Watson suggested that this period be extended to nine days. These tables show that the first well-marked diminution in the death ratio occurred on the fourteenth day of the disease, and from that period the recoveries were progressively in excess of the deaths. Within the first four days we have ninety deaths to nine recoveries; within the first nine days one hundred and thirty-one deaths to thirty-nine recoveries. From the ninth to the twenty-third day there are twenty-three deaths to eighty-two recoveries; and from the twenty-third day on there are seventy-one recoveries to three deaths, all of which occurred on the twenty-eighth day. The greatest number of deaths is on the second day—thirty-one. On the fourth day there were twenty-one deaths. There is a marked falling off in deaths on the fifth day, when there were but eleven deaths; from this time the percentage of deaths steadily diminished. The longest duration of symptoms is two hundred and forty days; the shortest, ending in recovery, is alluded to in the beginning of this article; the shortest, ending in death, is in a few minutes. Nine cases lasted forty-two days; eighteen cases lasted thirty days. Between these two periods we find nineteen cases. Sixty and ninety days are also represented.

The Pulse and Temperature. These have been recorded in too small a number of instances to admit of any deductions. Dr. Radcliffe (Reynolds's System of Medicine) has stated that there is an absence of fever in tetanus, and explains the heat and frequency of pulse, when they occur, by the dyspnœa, which urges the skin to take on compensative action. In three cases in which the temperature was recorded, and published now for the first time, the mercury rose to one hundred and six and one hundred and seven degrees; they were all fatal. In two other cases, also fatal, observed by the writer, the pulse was one hundred and twenty from the beginning of the attack.

Treatment. As we approach the subject of treatment, we feel that it is something which figures can not compass; so varied, so complicated has it been that it sets at defiance all efforts at anything like accurate tabulation. The bare enumeration of the remedies which have been used in this formidable disease would fill one of these pages. Of the fifty leading agents mentioned in the tables recoveries are credited to each; yet, if we analyze almost any case taken at random from the list, we find that in the smallest number of instances has the treatment been trusted to a single agent alone. In most cases, indeed, varied complications of the most powerful often along with the least efficient agents in the pharmacopœia were made, thereby rendering it utterly impossible to decide which, if either, was entitled to the credit of the cure. To illustrate our meaning—the following is recorded as a cure by subcarbonate of iron: Bleeding to sixteen ounces; electuary of subcarbonate of iron and turpentine; a blister to the pit of the stomach; turpentine enema; frictions with camphor liniment; and tonics. Does any one who reads this believe that the iron effected the cure; or, indeed, that either of the remedies used exercised any real influence over the disease?

Dr. Cowling has arranged in tables all the various remedies used which could apparently influence the result—has noted the whole number, with the percentage of recoveries under each: the number of recoveries which occurred in cases where the invasion was under nine days; the number of recoveries where the duration of the disease was less than fourteen days; and, *per contra*, has set down the deaths which took place where the date of invasion was over nine days, and where the symptoms lasted more than fourteen days. A careful analysis of these tables warrants, I think, the statement that the results of treatment by the different remedies are so nearly the same that no one agent can justly be said to possess any decided superiority over any other.

It is almost needless to remark that the mere time of invasion is not the only characteristic by which acute is distinguished from chronic tetanus, but it is an exceedingly heavy factor in any attempt to determine the effect of treatment and the comparative value of the different remedies used in the disease. Without it no correct estimate can be formed of the part which any individual agent, or which treatment as a whole, plays in the management of the affection. To economize space rather than because it fully expresses the several features whereby acute is known from chronic tetanus, I shall in the remainder of my remarks designate that form of the disease which supervenes within nine days after the injury as *acute*, and that which occurs after that period as *chronic* tetanus.

Calabar bean was given in thirty-nine cases, with thirty-nine per cent. of recoveries. Of these reputed cures but one was of acute tetanus; five others were in cases which recovered before the expiration of fourteen days. *Per contra*, there were ten deaths from chronic tetanus.

Indian Hemp. Used in twenty-five cases, with sixty-four per cent. of recoveries, of which three cases were acute, and six recovered before the symptoms lasted fourteen days. One chronic case died, and one after fourteen days.

Chloroform relieved seventy per cent. of thirty-five cases, nine of which were acute, and eight recovered before fourteen days. Three chronic cases died, and two after symptoms lasted fourteen days.

Ether. Sixty per cent. of fifteen cases recovered: five acute; seven inside of fourteen days. One chronic case died.

Opium. Fifty-seven per cent. of one hundred and sixty-five cases recovered: twenty-two acute; twenty-nine before the fourteenth day. Twenty-six chronic cases were lost, and four after the disease had continued fourteen days.

Tobacco relieved fifty per cent. of forty-one cases: six acute; six before fourteen days of the disease. Four chronic cases died, and one after fourteen days.

Quinine. Seventy-three per cent. of fifteen cases recovered: one acute; three before fourteen days. Three chronic cases ended fatally, and one after fourteen days duration.

Aconite. Eight per cent. of fourteen cases recovered: none acute; none recovered before fourteen days. Death in one chronic case.

Stimulants. Eighty per cent. of thirty-three cases recovered: four acute; six within fourteen days. Six chronic cases died, and three after fourteen days.

Mercury. Fifty-seven per cent. of seventy-five cases got well: eight acute; twelve before fourteen days. Seventeen chronic cases were lost, and two after fourteen days.

Bleeding. Fifty-five per cent. of fifty-eight cases recovered: nine acute; ten before the fourteenth day. Seven chronic cases were lost, and two after fourteen days.

Cold affusion. Seventy-three per cent. of eleven cases recovered: three acute; three before fourteen days. Two chronic cases died.

Ice-bags. Seventy-seven per cent. of nine cases recovered: one acute; two in less than fourteen days.

Amputation. Sixty per cent. of seventeen cases recovered: four acute; four in less than fourteen days. Three chronic cases died, and one after fourteen days.

Division of nerve relieved seventy-five per cent. of three cases: one acute; one before the fourteenth day. One chronic case died.

Purgatives. Sixty-six per cent. of seventy-four cases recovered: thirteen acute; twelve before fourteen days. Ten chronic cases died, and three after fourteen days.

Turpentine relieved seventy per cent. of sixteen cases: six acute; four before fourteen days. Five chronic cases died, and two after fourteen days.

These facts, as set forth by Dr. Cowling, would seem to show that we are not improving in our treatment of tetanus. The Calabar bean, of which such sanguine hopes are entertained by some, has not accomplished even so much as other remedies. By these tables, chloroform takes rank as the most efficient agent yet known in acute tetanus; while even mercury and venesection, which belong to a past age, excel the bean not only in general results, but in the power to arrest the disease in its acute form. An astonishing fact is that in the long list of remedies there are but three—woorari, warm baths, and musk—where the percentage of cures was less than by the Calabar bean; although each, save the woorari, effected an equal number of cures of acute tetanus. It is but just, however, to the friends of the bean to allow that the range of its effects and of its doses has been, up to the present time, so little understood that it can not be said to have yet been sufficiently tested. The bean seems unquestionably to possess very marked power as a relaxant, thereby allowing the administration of food during its exhibition in a degree not possessed by other agents.

A careful review of the tables suggests, we think, the following conclusions:

1. That traumatic tetanus occurs in males in the proportion of four to one, and tends to recovery oftenest in females.

2. That tetanus is most fatal in persons under ten years of age; that it is least fatal between ten and twenty years.

3. That traumatic tetanus usually supervenes between four and nine days after the injury; and these cases represent the largest mortality.

4. Recoveries from traumatic tetanus have been usually in cases in which the disease occurs subsequent to nine days after the injury.

5. When the symptoms last fourteen days, recovery is the rule, and death the exception, *apparently independent of the treatment.*

6. Of all the forms of tetanus, that appearing in the puerperal state is the most fatal.

7. That chloroform, up to this time, has yielded the largest percentage of cures in acute tetanus.

8. The true test of a remedy for tetanus is its influence on the history of the disease. *(a)* Does it cure cases in which the disease has set in previous to the ninth day? *(b)* Does it fail in cases whose duration exceeds fourteen days?

9. That no agent, tried by these tests, has yet established its claims as a true remedy for tetanus.—D. W. Y.]

LOUISVILLE.

ON THE CAUSE OF MALARIAL FEVERS.

BY DUFF CHILD, M. D.

From an ingenious and interesting paper by Dr. Child, styled "An attempt to point out the cause of malarial fevers," we condense some of the leading points for the benefit particularly of such of our readers as live in regions where miasmatic diseases prevail.

Dr. C. believes that marsh miasma is one form of the gaseous compound known as *cyanogen* (C_2N), either free or in combination, floating in the atmosphere, and *transiently* in the water of malarious localities. He was led to this opinion by three circumstances: one was the resemblance which exists between the symptoms of malarial disease and those of poisoning by cyanogen; another was the similarity between the odors given off by peach blossoms, peach kernels, oleander, and other vegetable substances known to contain cyanogen, and that emitted by the dead and decaying wood in lands subject to overflow. He attempted to demonstrate the existence of cyanogen in the emanations from and near the surface of the earth, in districts where malarial affections abound, by a series of interesting if not conclusive experiments. But before giving these the thread of Dr. C.'s reasoning will best be preserved by quoting the following tabular view of symptoms caused by cyanogen or compounds and malaria:

Cyanogen.	**Malaria.**
1. Weight and pain in head; confusion of intellect; giddiness.	1. Sense of weight or tension in head; head confused; vertigo; sometimes deep-seated pain.
2. Insensibility.	2. Lethargic insensibility.
3. Nausea; vomiting sometimes.	3. Stomach irritable; frequent efforts at vomiting.
4. Loss of muscular power.	4. Lassitude; great debility.
5. Pulse sometimes quick, but commonly tremulous and feeble.	5. Pulse small, frequent, struggling.
6. Respiration slow, deep, gasping, and sometimes stertorous.	6. Respiration slow, anxious, labored, sometimes hurried, sometimes stertorous.
7. Skin cold, with clammy perspiration; cold hands and feet; finger nails livid.	7. Skin cold, with clammy perspiration; cold hands and feet, etc.
8. Spasmodic closure of jaws; tetanic spasms, preceding death.	8. Tetanic closure of jaws sometimes; tetanic spasms in very serious cases.
9. Involuntary evacuations, in some cases.	9. Bowels sometimes confined, most frequently relaxed; discharges copious.

It will be observed that Dr. C. has given the symptoms of a paroxysm of pernicious fever, his reason for doing so being that he considers this form of manifestation as that in which the full power and effect of malarial disease is best shown.

"The symptoms of chronic cyanogen-poisoning, especially as observed in workmen exposed to vapors containing this substance, are dull pain in the head, darting pains over the eyes, abnormal sounds in the ears, dizziness, vertigo, pain in precordial region, difficult respiratiom, constriction of throat, feelings as of suffocation, and alternate wakefulness and somnolency. Physicians familiar with that form of malarial fever commonly called '*dumb ague*' will have, I think, no difficulty in tracing the resemblance it frequently bears to the collection of symptoms quoted above."

The manner in which Dr. Child detected, as he believes, the prevalence of cyanogen in the surface emanations of miasmatic soils was by using Schönbein's test-paper (prepared by tincture of guaiacum and copper), which, when properly prepared, yields its characteristic reäction only to cyanogen in some one of its forms. Strips of this paper were secured a few inches above the ground, in a marshy spot, and left over night. When examined the following morning they all presented the characteristic reäction, but in faint degree. This experiment not being altogether satisfactory, it was repeated in two other localities where miasmatic affections prevail, and in a somewhat different manner. The strips were inserted a short distance into the fissures or "sun-cracks" with which the soil was covered.

> "The result of this trial was very marked and satisfactory. That portion of the paper in the fissures was changed to a sky-blue color, while the part which projected had altered very little, showing a greenish brown tint. A short exposure of the blue extremity to sunlight changed it to the greenish brown hue also. I attribute this difference in color between the two extremities of the strips to the action of sun-light, which I believe not only destroys the blue color of the test-paper, but decomposes and renders less noxious the poisonous emanation producing that color. In the test strips the boundary between the tints of the opposite ends was sharply drawn, showing how far the paper had been protected from the sun's rays by the sheltering sides of the fissures."

If it be granted that malaria *is* cyanogen, or some vaporous compound containing this poison, emanating from the soil and mingling with the air and water, Dr. C. has no difficulty in explaining the circumstances attending or supposed to be favorable to the development of the fever poison — why, for instance, it affects low and moist localities, and requires for its production a certain range of temperature, etc.

Dr. C. believes that the poison of malaria is removed from the system chiefly through the kidneys, and in support of this view quotes Golding Bird, who, however, he says, has expressed no opinion concerning the precise nature of the poison. Piretti, of Rome, asserts that in persons laboring under malarial disease the urea normally present in urine is replaced by cyanate of ammonia; that when ague is successfully treated by quinia, the cyanate gradually disappears and is replaced by true urea. Dr. C. suggests:

> "If cyanide of ammonium ($CyNH_4$ or $C_2N_2H_4$), lacking only two equivalents of oxygen to make it cyanate of ammonia ($C_2N_2H_4O_2$), were the form in which malarious poison enters the system, it might readily be converted by the addition of oxygen, found uncombined in the blood, into the cyanate, and thus be eliminated from the body."

The remainder of Dr. C.'s paper is occupied in the attempt to explain the periodicity of malarial diseases, and the statement of many interesting facts connected with the carbide of nitrogen, miasma, etc. But our space obliges us to bring this very imperfect abstract to a close. Dr. Child is continuing his experiments in this wide and important field of inquiry, and has promised to give their results at some future day to the readers of the Practitioner.

LOUISVILLE.

Reviews.

The Transactions of the New York Academy of Medicine. Vol. III., No. 9. "Some Clinical Observations on the Malignant Diseases of the Uterus." By FORDYCE BARKER, M. D., Professor of Clinical Midwifery in the Bellevue Hospital Medical College, etc. New York: Wm. Wood & Co.

Professor Barker, in this monograph, first discusses the *frequency* of malignant uterine diseases; then the *comparative exemption of negresses*; then considers at more length the *etiology.* Under this last head his own as well as the statistics of other authors show that hereditary influence is a factor, if at all, in but a small minority of cases; indeed he goes so far as to state (p. 7) "there is no evidence that the *disease* is, in any proper use of the term, *hereditary.*" The relations of phthisis and uterine cancer are referred to, and the former was found to exist in two hundred and forty-seven of the families of those having the latter. We may observe, by the way, that a most interesting paper was read before the Academy of Medicine, Paris, in May last, by Dr. Burdel, in which these relations were studied in the opposite order; and the author's carefully-prepared statistics, embracing more than one hundred families, showed that parents affected with cancer had children who were affected with the tubercular diathesis. This statement is eminently worthy the attention of the profession.

The topics next discussed by Prof. Barker are *classification, symptoms, diagnosis, duration of the disease,* and finally *treatment.* He differs from other authorities materially upon the fourth of these points; for, while West gives fifteen months, Lebert sixteen, Simpson two to two and a half years, in twenty-six cases he has found the average duration three years and eight months. He refers to two of his patients, one of whom has lived five years and the other eleven years with uterine cancer.

In cancroid disease he advocates ablation, if the operation be performed sufficiently early to extirpate the entire diseased structure; and for this operation he prefers the knife to the ecraseur. Where amputation of the diseased growth is not possible in this or other forms, cauterization may be resorted to: the actual cautery, acid nitrate of mercury, or chromic acid (one hundred grains to the ounce of water); his preference being for the first, and the chief objection to the second being the liability to the production of severe salivation. As constitutional anodynes, he advocates opium or chloroform, no mention being made of the hypodermic use of morphia; while for the sensitiveness of the ulcerated surface an iodoform pessary, for which we give his formula, premising that we hope the students of Bellevue are not taught to write prescriptions thus incorrectly, for there are three obvious errors in this:

℞.—Iodoform, gr. x; butyri cacao, ʒj; glycerin., gtt. v. Mix. One pessary.

Prof. Barker advises the administration of arsenic—"three drops of Fowler's solution, to be taken always after eating;" and also states that "the Missisquoi water of St. Albans, Vt., has in some cases seemed to be of great benefit in arresting for a time the progress of the disease."

Lord Bacon urged upon physicians the study of those diseases that were regarded as incurable, believing that such study would result in the discovery of valuable remedies. With this view, the labor of Prof. Barker, though he has brought together much—too much it seems to us, for one that is already of such famous ability and attainments, and for the audience his paper was presented to—that is already quite familiar to the profession, is to be regarded with great favor. He has certainly done a good service in showing that the victim of uterine cancer has a longer lease upon life than has hitherto been believed, and that in some instances where a fatal result seemed inevitable cure occurred. The doctors who are called to treat and the sad sufferers who are called to endure one of the most loathsome and terrible of human maladies will, in view of this contribution from Dr. Barker, thank God and take courage.

Eighth Annual Report of the Pekin Hospital; in connection with the London Missionary Society, for the year 1869. By JOHN DUDGEON, M. D., C. M. Pekin, 1870.

We are indebted to our friend Professor W. A. P. Martin, of the University of Pekin, for this report. From it we learn the number of patients, in-door and out-door, for the year 1869 was 14,420, more than three fourths being males. The chief medical cases were asthma, dyspepsia, rheumatism, and neuralgia; surgical cases, ulcers and abscesses—important operations, as amputations, removal of necrosed bones of the lower jaw, etc.

Small-pox is an *endemic* in China; not more than eight per cent. of the children, in large towns even, are vaccinated. When the Chinese vaccinate they make three punctures in each arm and introduce the matter subcutaneously. It is evident that in this practice our celestials, though acting upon an absurd theory—viz., that the poison of the "heavenly flowers," the name for variola, is located at these six different points—insure the greatest protective power.

Among the curious statements made by Dr. Dudgeon in his report is this: "A custom prevails in the south of China of selling women's milk on the streets or hiring wet-nurses for the old and infirm of both sexes. Doctors sometimes recommend this treatment to well-to-do patients when all other measures have failed. In the case of men a screen intervenes between nurse and patient." We remember reading in Bœrhaave the suggestion that "baths of human milk recently extracted" might be useful in promoting longevity; the Chinese plan is much more economical.

The following passage from page 9 of the report shows that the Chinese have priority over an American surgeon in the earth-dressing; and, by the way, a medical friend, more than two years ago, told us he remembered in his reading some ancient author—Herodotus he thought—that dry clay was spoken of as a successful application to wounds: "The application of the 'dry-earth' system for wounds is not new in China. It is one of the commonest applications to abscesses and ulcers. Yellow earth—which abounds here a few feet below the surface, and which is used extensively for mixing with coal dust, forming balls for domestic use—with the addition of some aromatic powder, is widely used. It occurs in their medical books among remedial agents."

The report concludes with some remarks on Chinese medicine. The author, after referring to the ignorance and the absurdities characterizing it, adds: "There is yet a very considerable residuum of shrewd observations of symptoms and diagnosis, and sometimes beneficial, or at least harmless and inert, modes of treatment."

A Treatise on Medical Electricity, Theoretical and Practical, etc. By JULIUS ALTHAUS, M. D., Member of the Royal College of Physicians, etc. Second edition; revised and partly rewritten.

The readers of the Practitioner will remember that an article upon medical electricity appeared in the July and a a review of Meyer's treatise upon the same subject in the August number of this work. The book, titled as above, comes from London with the imprint of Lindsay and Blakiston, and is offered for review. The growing importance of electro-therapy, and the undeserved neglect which it has received from the generality of practitioners, make the sum of our apology for giving an extended notice of another work treating of that branch of medicine.

Years ago, when its first edition was issued, it stood almost the sole English advocate of the claims of electricity during its evil days. For its thorough practical qualities it was regarded as without an equal in the purview of our acquaintance; and, although a multitude of books upon the same subject have since been published, Althaus has kept even pace with modern improvement, and it comes to us now holding its old rank as a standard work, with its size enlarged three-fold.

In the opening chapter we still encounter the objectionable hypothesis of two electric fluids, consisting of molecules, with attractive and repellant powers. There is an odor of antiquity about such ideas and terms scarcely agreeable to those accustomed to the prevalent doctrines of polarity and the unity of force. The reader will condone this important error—for *error* it would be called by a very large majority of modern physicists—in consideration of some vivid engravings and luminous descriptions of apparatuses which can not be found in any similar work.

The second chapter, wherein most of the additions have been made, is a bountiful feast of experiments and theories in electro-physiology; nor is it a mere compilation from Dubois, Reymond, Matteucci, and others so often quoted. The author indulges in free criticism and frequent dashes of original thought, in which he offers his own well-founded views, not seldom to the detriment of received opinions.

The third chapter is devoted to medical electric appliances and the various methods of administration. While ample justice is done to other systems, only a short paragraph is devoted to the system of "general faradization," and even that mentions skeptically its reputed efficacy in paralysis; and in his fifth chapter the author strongly deprecates this form of exhibition. We have lately had an opportunity of testing its virtues in two cases of hemiplegia, of undoubted cerebral origin, both of which were cured.

The first case was in a lady of fifty-five years. Local faradization was proposed; but the patient, prompted by modesty, strenuously objected to the required manipulation. It was determined to try if aught could be done without exposure of the afflicted members. One electrode, with the foot of the ailing side, was immersed in a basin of water; the other was held in the corresponding hand. By alternating the direction of a feeble current, applied in this way every day for a month, the patient was completely restored.

The second case was also that of a lady, aged fifty-three years. In May last she was stricken with an apoplexy, which was followed by coma more or less profound, and lasting three days. When consciousness returned it was discovered that one side of the face and the right extremities were partly paralyzed and lacking in sensibility. At the expiration of two months from the seizure she was in the following condition: memory and powers of attention much impaired; speech very fragmentary and hesitating. The face had gradually resumed its normal expression; but the right hand was useless for its ordinary offices, and the right foot and leg refused to perform their work. The above-named method was employed, and after daily sittings for six weeks the limbs have recovered almost their former cunning and strength. She dresses and feeds herself, and walks about freely, though fatigue is soon induced. Her memory is much better, and her speech is restored to its natural fluency. The conclusion is irresistible that a feeble, induced current, transmitted in this unorthodox way, deserves at least honorable mention as a stimulus to the vital energy of palsied parts.

This chapter deals also with the operation of electrolysis, whereby surgery has been robbed of many of its terrors. It was first introduced by the author in treating tumors, diseases of blood-vessels, effusions, etc. He gives as the general result of his investigations, with the continuous current sent by needles through the different structures of the body, "that no animal tissue whatever can withstand the disintegrating effect of the negative pole;" and "no galvanic heat is introduced if the current is applied in such a manner that the whole body, or part of the body, or animal liquids are placed within the circuit of the battery." To accomplish this he adjusts the moistened positive pole outside upon the skin.

The concluding third of the book is an able dissertation upon electro-therapeutics. It constitutes a treatise in which is condensed almost everything a physician need to know about the matter. The aim of the author has been to exhibit the most practical truths in a perspicuous manner, and it will be the verdict of every reader that this self-imposed task has been well performed, as will be witnessed by the number of diseases treated, the lavish use of clinical illustration, and the apt style of his writing. J. W. H.

Lectures on Clinical Medicine. By A. TROUSSEAU, late Professor of Clinical Medicine, Paris, etc. Vol. III. Translated by JOHN ROSE CORMACK, M. D., F. R. S. E., etc. The New Sydenham Society, London, 1870.

The first two volumes of Prof. Trousseau's Clinical Lectures have been republished in this country, and have already been read by thousands of American physicians. This, the third volume, will, we understand, also shortly be reprinted in Philadelphia. The copy now before us is one of the publications of the New Sydenham Society, London, and is uniform with the series of classic works issued by that enterprising and enlightened corporation. It contains lectures on the following subjects: specific element in disease; contagion; ozæna; stridulous laryngitis, or false croup; œdema of the larynx; aphonia, cauterization of the larynx; dilatation of the bronchi and bronchorrhœa; hemoptysis; pulmonary phthisis; gangrene of the lung; pleurisy, paracentesis of the chest; traumatic effusion of blood into the pleura, paracentesis of the chest; hydatids of the lung; pulmonary abscesses and peripneumonic vomicæ; treatment of pneumonia; paracentesis of the pericardium; organic affections of the heart; alcoholism; spermatorrhœa; nocturnal incontinence of urine; glucosuria, saccharine diabetes; polydipsia; vertigo a stomacho læsio. Those of our readers who are familiar with the teachings of the illustrious Frenchman will recognize in several of these topics subjects on which he was wont to dwell, and to the elucidation of which he gave so much time and labor.

Our present notice of the work must be brief, but we shall endeavor to have it embody, as far as our space will admit, the treatment pursued by the author in the several diseases he discusses.

Ozæna. Our author states that where this affection is unattended by disease of the bones, and treatment can be directed to the cause of the inflammation of the pituitary membrane, the cure is easy; but where the ozæna is either herpetic or scrofulous, constitutional remedies are nearly always insufficient if used alone, and it becomes necessary to trust rather to agents which can be applied in a direct manner to the diseased mucous membrane. Topical medication therefore is that on which our author places most reliance. Before this, however, can be used, it is indispensable that the mucous accumulations and the crusts which cover the pituitary membrane should be removed. This is done by the nasal douche, with either cold or tepid water. But, "do what you may, it is not easy to accomplish a cure, nor can you ever obtain a cure in a short period." However successful the treatment may appear, if it be too soon discontinued the disease will at once return. Whatever the plan adopted, it should be persisted in for at least six or eight weeks after the disappearance of the fetor. After this time, if the improvement continues, the remedies may be applied in less concentrated form, and not so frequently, until finally at the expiration of several months they may be abandoned.

M. Trousseau states that at the menstrual periods there is generally an aggravation of the symptoms irrespective of treatment. The fetor nearly always returns somewhat at this time. The same also occurs under the influence of any cause which excites inflammation of the pituitary membrane. Whenever such special conditions arise the treatment must be carried out in its full rigor. Powders inspired by the nose (as snuff is taken), the direct application of caustic to the ulcerated parts, and injections of various kinds are the means generally employed. The following formulæ represent the four powders recommended by M. Trousseau.

No. I.	Subnitrate of bismuth, ... Venetian talc, ...	of each 232 grains.
No. II.	Carbonate of potash, ...	30 grains.
	Sugar in fine powder, ...	232 grains.
No. III.	White precipitate, ...	$3\frac{5}{6}$ grains.
	Sugar in fine powder, ...	232 grains.
No. IV.	Red precipitate, ...	$3\frac{5}{6}$ grains.
	Sugar in fine powder, ...	232 grains.

M. Trousseau begins with the mercurial powders, which he gives as a snuff, twice or thrice a day, the frequency being regulated by the amount of irritation produced. If this be considerable, use less frequently, and for only a few days in succession. No such caution is needed when employing the bismuth and talc powder; this may be snuffed up as often and in as large quantities as patients may fancy. The chlorate of potash is also a useful snuff in ozæna; it acts directly on the mucous surfaces, and is besides an excellent disinfectant. But powders of whatever kind can, as a rule, be employed only in adults; in children, injections are almost the only available treatment. The favorite injections with our author are: No. 1—chlorate of potash, one part; water, one hundred parts. No. 2—nitrate of silver, five parts; distilled water, one hundred parts. No. 3—sulphate of copper or zinc, five parts; distilled water, one hundred parts. "The pituitary mucous membrane is much more sensitive than is generally supposed," and in using injections they should at first be very weak; one fourth grain of either of the metal salts above named to an ounce of water is sometimes ill borne in the commencement. This extreme sensitiveness usually quickly disappears, but the solution ought never to be so strong as to produce suffering. The injections should be used for several days in succession—twice, thrice, or four times a day—after which, in adults, the powders ought to be resumed, and continued for a time, then the injections, and so on.

Notwithstanding the stress laid by Prof. T. on topical remedies in non-syphilitic ozæna, he yet admits that general treatment is of very great importance.

> "Cod-liver oil taken for fifteen consecutive days in every month, and continued for a long time, is sometimes very useful. The tincture of iodine* administered over a period of several months, twice or thrice a day at meals, in a dose of from five to twenty drops, often produces exceedingly beneficial results in constitutional ozæna. Arsenical preparations perseveringly continued, as is usual in treating the herpetic diathesis, are still more powerful adjuvants to the topical medication."

Stridulous laryngitis, or *false croup*, the next subject in order, M. Trousseau says is a disease which cures itself. Sponging the throat with very hot water, as recommended by Graves, "is usually sufficient without any other means, such as emetics," for the relief of the attack.

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* The tincture of iodine of the French Codex consists of one part of iodine to twelve of alcohol.

In *œdema of the larynx*, "where the inflammation is simple and very acute, and the febrile reäction intense," our author resorts at once to antiphlogistic remedies.

> "One or two large general bleedings, and the abstraction of blood from the cervical region by leeches or cupping, will give great relief, and moderate the severity of the symptoms. Recourse will afterward be had to cauterization with nitrate of silver, to insufflation of alum or tannin into the back part of the throat, and as far down as the aryteno-epiglottidean ligaments. When it is practicable, scarification of these ligaments has been recommended."

Prof. T. admits he has not had the courage to undertake this operation, notwithstanding the strong testimony furnished by Dr. Gurdon Buck as to its utility. Indeed he questions both the utility and facility of the operation, and gives it as his opinion that most of the cases reported by Dr. Buck would have recovered under simpler treatment; that, in fact, they "were acute non-symptomatic cases of œdema of the glottis, an affection which corresponds in the adult to false croup in the child, and which gets well of itself notwithstanding the very alarming aspect of the symptoms." "Whatever may be the nature of the disease, whatever may be the laryngeal lesion which has induced the œdema of the glottis, the first thing to do is to apply topical treatment." Water-spray strongly charged with tannin is the local remedy which Prof. T. prefers, and he esteems it "even more serviceable in chronic affections of the larynx, than in œdema of the glottis." After this he recommends "insufflation of tannin and alum, cauterization with nitrate of silver, and (when practicable) scarification of the aryteno-epiglottidean folds." These failing, he resorts to tracheotomy.

Aphonia. The treatment which Prof. T. here advises in this affection is more especially applicable to certain chronic cases, and almost exclusively to such as are not dependent on any serious lesion of the phonetic apparatus. In this class of cases our author has had "wonderful success" from cauterization of the upper part of the larynx with the saturated solution of the sulphate of copper, "or a solution of nitrate of silver in the proportion of one part of the salt to five of water (by weight)," applied by means of the sponge probang. He sometimes substitutes the tincture of iodine for the sulphate of copper.

Where the aphonia is coincident with chronic follicular pharyngitis, it is probable "that the inflammation extends from the pharynx to the mucous membrane of the larynx;" and as such cases usually coëxist with the herpetic diathesis they are particularly obstinate. Here arsenical fumigations, followed at a later stage by cauterization with the copper, are, we are told, generally sufficient to effect permanent cure. The arsenical cigarettes used by Prof. T. are made as follows: "Take of arseniate of potash fifteen grains; distilled water, fifteen fluid drachms; evaporate this solution upon a sheet of white paper which does not contain any glue. Having dried the paper make it in twenty cigarettes. Every morning the patient ought slowly to inhale into the bronchi from eight to ten whiffs of the smoke of one of these cigarettes;" and after the patient seems to be restored he resorts to the cigarettes "on eight continuous days, once a month, with a view to prevent a relapse." He does not allude to electricity in aphonia.

> "The efficacy of the treatment, and the rapid manner in which recovery takes place under it, seem to occur exactly in proportion to the superficiality of the inflammation, if one may be allowed to employ so incorrect an expression. In aphonia supervening as the sequel of a moral emotion, or as the result of abrupt stoppage of the menses, as well as in aphonia occuring during pregnancy or after delivery, one or two cauterizations generally suffice."

Dilatation of the bronchi and bronchorrhea. Concerning the latter condition our author remarks that whatever its species, whether it depend on influenza or on morbillous catarrh, herpetic or other catarrh, we will derive real benefit from the same medicines which are appropriate in urethral blennorrhagia." At the head of these he places balsam of copaiba and essence of turpentine. They are contraïndicated in pulmonary as in urethral blennorrhagia during the inflammatory stage.

Prof. T. employs concurrently with the foregoing treatment that by inhalation of medicinal substances, which he considers "bears the same therapeutic relation to pulmonary blennorrhagia that stimulating injections bear to blennorrhagia of the genito-urinary organs." The patient may either inhale air impregnated with balsamic vapors or (what is a more effectual method) substances atomized by the spray apparatus. "Great relief is sometimes obtained by smoking cigarettes of arseniated or nitrated paper."

Hemoptysis. In pneumorrhagia or parenchymatous hemorrhage from the lung, which is almost always connected with disease of the heart, Prof. T. practices very moderate bleedings, and gives digitalis in full doses, acids, and ratanhy. "When parenchymatous hemorrhage is obstinately recurrent, ipecacuanha is a remedy which seldom fails." But here it is given in small quantities, emetic doses being reserved for what our author calls bronchial hemorrhage, in which affection he administers the ipecac to full emesis.

> "Nevertheles [Prof. T. remarks] the hand trembles when it administers this remedy for the first time in the treatment of hemoptysis. We are accustomed to prescribe the greatest possible quietude to our hemoptoic patients: we counsel them to keep absolute silence; we tell them to restrain the slightest effort to cough; the very most we allow them to do is to breathe; and so frightened are we for congestion, even passive congestion of the lung, that we act as if we placed them in peril by permitting them to make the slightest effort. Yet here we are giving a medicine which produces vomiting, during which the face swells, the blood stagnates in the

veins by which it is being conveyed to the auricles; and consequently the pulmonary veins become distended. One might expect that such treatment would cause the hemoptysis to return in a much more profuse degree; but in place of this it is stopped in nearly every case. Here is one proof more of the small reliance to be placed on theoretical explanations, and of the value of empirical facts, without which indeed therapeutics would be a nullity."

Gangrene of the lung, when seated in the pulmonary parenchyma, is nearly always incurable. When it involves the extremities of the minute bronchial ramifications it is a milder affection and more amenable to treatment. "The cures have generally been obtained by pulmonary atmiatria." The substances used for the purpose are "essence of turpentine, the essential oils of cubebs and copaiba, tannin, solutions of extract of ratanhy, of sulphate of copper, of corrosive sublimate, of arseniate of soda—powerful modifiers, which when introduced into the bronchial tubes act upon the diseased surfaces in a manner wonderfully conducive to recovery. At first the solutions used must be exceedingly weak, and their strength be slowly increased in proportion to the increased tolerance of the economy."

TO BE CONTINUED.

Clinic of the Month.

SYPHILIZATION.—Prof. F. J. Bumstead, M. D., in reply to the question, Is syphilization to be recommended for general adoption, answers: "From what I have personally witnessed, and from the accounts of others, I believe that it is a very effective method for the treatment of syphilis. I can not say that I am fully convinced of the very small number of relapses after 'syphilization' alleged by its advocates; not that I for a moment doubt their honesty, but results so favorable as this should be confirmed by others less enthusiastic and less interested before demanding implicit belief. From what I have seen of the practice, nothing less than a very strong probability, in case I myself had syphilis, that the disease, if left alone, or if treated by mercury, would terminate disastrously, could induce me to undergo the personal discomfort, and for the length of time, which I have witnessed in the patients at Charity Hospital. This *debit* side of the account, I can not believe, is fully appreciated by the advocates of 'syphilization' in their enthusiasm for the *credit*. The former, in fact, is apparently not regarded by them as deserving of mention. Upon inquiry of Prof. Boeck, I am told that this plan of treatment is usually carried on without any interference with the patient's ordinary avocations; that the inconvenience is even so slight that a husband or a wife who has gone astray and contracted syphilis may undergo this series of repeated inoculations extending over a period of three or four months, and yet be able to pass off the resulting pustules and ulcerations, covering the chest, arms, and thighs, as common 'boils!' What I have seen of 'syphilization,' as practiced by Prof. Boeck himself, would make it appear a less agreeable process than the above statement would imply. To be sure, the treatment was new at Charity Hospital, and the patients were probably aware of the fact and more or less suspicious. Yet they kept their beds during the greater part of the three or four months that the inoculations were going on, although they had every inducement to be up and out upon the grounds; and it often required all our powers of persuasion to lead them to consent to a continuance of the inoculations, so great was their discontent. Indeed I never made a visit to the hospital without the fear that some of them had eloped, as actually happened in three instances. They represented that the soreness of the ulcerations was so great that they could scarcely endure the contact of the bedclothes, much less that of their daily dress, and the appearance of the sores corroborated their statement. I can not well imagine how persons in their condition could have been about attending to their daily business. When they left the hospital they bore scars over the chest, arms, and thighs, which they will doubtless carry with them to their graves. Moreover, the serious tendency of an ulcer upon the thigh, in one case, to take on phagedenic action shows that this practice is not devoid of danger. In short, I feel obliged to subscribe to the opinion expressed by Messrs. Lane and Gascoyen, that 'syphilization is not a treatment which can be recommended for adoption.'" (Amer. Jour. Med. Sciences.)

NEURALGIA OF THE JAW-BONES.—Professor Gross says: "There is a form of neuralgia of the jaw-bones which, as far as my information extends, has not hitherto been described. Its seat is in the remnants of the alveolar process of edentulous persons, or in the alveolar structure, and in the overlying gum, and is met with chiefly, if not exclusively, in elderly subjects. It is more common in the upper than in the lower jaw. The part affected is usually very small, often not exceeding a few lines in extent. The soft tissues around do not seem to suffer, at least not in the same degree; on the contrary, the morbid action is generally limited to the osseous structure. In rare instances there may possibly be some involvement of the gum, which is nearly always exceedingly hard and dense, grating more or less under the knife, and adhering with extraordinary firmness to the atrophied alveolar process beneath. The pain is generally paroxysmal, coming on in fits and starts, very much as in ordinary neuralgia, the slightest causes being sufficient to provoke it, as talking, mastication, the contact of hot or cold fluids, deglutition, or mental excitement. Sometimes it is momentary, coming and going with the rapidity of lightning; occasionally it lasts for hours together; and cases occur, although they are rare, in which it continues, with but little mitigation, for an indefinite period. The pain varies in character; thus it may be sharp and darting, dull, heavy, aching, boring, or gnawing. Pressure generally relieves rather than aggravates it. Now and then, when it is uncommonly severe, there may be more or less spasm of the muscles of the face, but this is rare. The pathology of the affection seems to be compression of the minute nerves distributed through the wasted alveolar process, dependent upon the encroachment of osseous matter upon the walls of the canals in which they are naturally inclosed. The disease usually comes on gradually, and proceeds from bad to worse until, in many cases, the suffering is rendered nearly intolerable. The only effectual remedy is excision of the affected alveolar process. No particular attention need be bestowed upon the after-treatment. A mild course of chalybeate tonics may be required when the patient is anæmic, or affected with flatulence and indigestion." *(Ibid.)*

THE PEDICLE AND ITS TREATMENT IN OVARIOTOMY.—M. Tixier says experience and observation enable a diagnosis in certain cases of the probable length and variety of the pedicle. Such knowledge, obtained from certain objective and subjective signs, is valuable, since upon the length of the pedicle the success of the operation often depends. Three varieties can be diagnosed with considerable certainty: viz., long, short, and twisted.

Long Pedicle. The abdominal form is peculiar; it is that called wallet-shaped. The subumbilical part of the abdominal wall lies upon the internal face of the thighs; and the ovarian tumor, strongly projecting in front, does not seem in immediate relation with the superior strait. Vaginal touch makes known elevation of the neck, and the index finger encounters no tumor in the pelvic cavity. The uterus has great mobility, and can be readily displaced. The combination of these signs renders very probable an elongation of the broad ligament and of the fallopian tube—a condition favorable for fixing the pedicle externally.

Short Pedicle. A short pedicle may be presumed from the following signs: first, the form of the abdomen differs from the preceding; sometimes there is observed a lateral enlargement without pronounced projection of the median part. In endeavoring to press externally the ends of the fingers between the tumor and the pubes, the tumor is found to extend into the pelvic cavity, its base appearing to rest upon the superior strait. Vaginal touch shows descent of the neck, and more or less immobility of the uterus. By subsequent explorations with the finger of the pelvic cavity, we learn that it is occupied with certain portions of the tumor.

Twisted Pedicle. A twisted pedicle we conclude exists from the following symptoms: the patient experiences very acute pains, irradiating below in the vein corresponding to the affected ovary, and above in the lumbar region of the same side. They are excited by work, fatigue; especially do they suddenly appear when the patient is lying down and changes her position. There is also observed in these patients uterine cramps analogous to those caused by ligature of the pedicle. The cystic liquid is always more or less dark, presenting a hemorrhagic color. Touch gives no positive information in these cases; but when a pedicle is twisted we know that it is long and small. *(Archives Générales.)*

MILK AS A PROPHYLACTIC AGAINST LEAD AFFECTIONS.—M. Didierjean observed in works for the manufacture of red lead the great liability of the laborers to become poisoned, and this notwithstanding suitable hygienic care, bathing, etc., and the use of sulphuric acid lemonade. About the close of 1867 his attention was directed to two of the employees who, though a long time engaged in the works, had never been sick; upon inquiry he found they were in the habit of taking milk at their meals. Commencing February, 1868, all the laborers were required to use milk similarly, and in a short time they recognized the good effects of this drink. Not a single one in more than eighteen months has suffered from lead-poisoning. *(Ibid.)*

THE SEWING-MACHINE ON HEALTH.—M. Decaisne asserts, among other things, that "a rigorous investigation has demonstrated that females engaged in working the sewing-machines are not more subject than other laboring women to metrorrhagia, miscarriage, leucorrhœa, and peritonitis; and that the facts which have been adduced in favor of such a view were simple coincidences, and the result of excessive labor. *(Ibid.)*

HEREDITARY TENDENCY IN TUBERCULOSIS.—Sir William Jenner, in some clinical remarks at the University College Hospital, stated that he believed, with regard to children both of whose parents are tubercular, the morbid tendency is not only transmitted to them, but intensified in them to a degree exceeding the sum of the tendencies of the parents; and that the intensifying of the tendency, under these circumstances, occurs equally in cases of insanity and of nervous disease in general. On this ground he objected to intermarriage, few families being free from a tendency to some disease; therefore if two members of the same family became married the tendency latent in them would be intensified in their offspring to an enormous degree. He was also satisfied, from his observations at the Ormond-street Hospital for children, that the father transmits the tendency with greater certainty than the mother, when one parent only is affected. (Lancet.)

A NEW VESICANT.—In a recent number of the *Journal de Chimie Médicale*, M. Delpech calls attention to the defects of the ordinary preparations of cantharides; the proportion of the active agent or cantharidin varying, the presence of fatty or oily substances sometimes causing the absorption of a dangerous poison, and the resin of turpentine employed in the composition of the plaster being an unnecessary irritant. In place of this he recommends the cantharidinate of potash, which is of a very stable composition, has no odor, and possesses a vesicant action in a high degree. He recommends, as the best formula for the plaster, gelatin, 2.09 parts; water, 10 parts; alcohol, 10 parts; cantharidinate of potash, 0.20; glycerine, 9.5 parts. The mass should be equally spread on thin gutta-percha, a definite quantity being present in each square inch. *(Ibid.)*

PAIN AFTER OPERATIONS.—The narcotic effects of chloroform or ether destroy pain during operations, but many patients suffer severely after the narcotism has gone off. To prevent this, Professor Sédillot, of Strasburg, proposes to divide the tissues with the platinum wire brought to a white heat by the galvanic current. This division should be effected very slowly, so as to prevent hemorrhage. The author states that no pain is felt on awaking; that the wounds heal extremely well; and that hospital complications do not occur. *(Ibid.)*

HYDRATE OF CHLORAL.—Dr. John B. Tuke says the advantages possessed by chloral over all other hypnotics are: 1. That it is more uniformly certain in its action; 2. That it has no depressing influence; 3. That it does not cause constipation; 4. That it does not produce nausea; 5. That its effects are more lasting. He believes that it is the most valuable means of producing sleep which has been introduced into the pharmacopœia of the asylum physician. The only difficulty is to ascertain the exact dose for each case; but this is obviated by beginning with half-drachm doses, and increasing them by ten grains until the limit is found. *(Ibid.)*

SCARLATINA.— Dr. H. S. Purdon, of Belfast, the worthy successor of Mr. Wilson in the Journal of Cutaneous Medicine, has derived much benefit in scarlet fever from the old remedy, chlorate of potash, given with diluted hydrochloric acid, the latter being extremely serviceable when acute catarrh of the stomach complicates the disease, as it dissolves the tenacious alkaline mucus, coating the walls of that organ, thus allowing nourishment to be absorbed. (Amer. Journal Syphilography and Dermatology.)

TINEA.—No skin diseases are more annoying than those designated by the name of "ringworms." In tinea circinata and tonsurans, one or two applications of a solution of chromic acid (one drachm to the ounce of water) has in the writer's hands proved very efficacious in curing the disease. Sometimes liquor potassæ painted over the affected part answers very well, or a solution of carbolic acid, which remedy checks the development of spores, and also prevents them from germinating. (*Ibid.*)

SCROFULODERMA.—The acetate of soda, eight grains to the ounce, has been recommended by Dr. M'Call Anderson, of Glasgow, as an application in strumous affections, but in the writer's hands has been found to be inferior to the iodide of lead ointment. A popular country remedy is an alcoholic solution of walnut leaves. The injection of tincture of iodine, four to eight drops, into glandular enlargements has been lately recommended, and has been tried in several cases at the Belfast Hospital for Diseases of the Skin. An ordinary hypodermic injection syringe answers very well. Care must be taken to avoid any of the superficial veins. After a few injections the glandular swellings become hardened and rapidly absorbed. Sometimes symptoms of iodism are exhibited, when the remedy must be discontinued for a short time. *(Ibid.)*

PHTHEIRIASIS.—A good cleanly remedy for pediculi wherever situated is a lotion containing the yellow oil of sandalwood, suspended by means of glycerine and rectified spirit. This essential oil has a powerful odor, which destroys the insects. *(Ibid.)*

ULCERATION OF SEPTUM NASI.—Pereira recommended an ointment containing one drachm of the nitrate of bismuth to the ounce of lard as a local application in this disease. A short time since an interesting case of ulceration of septum nasi was cured by the use of this ointment, after nitrate of silver, tannin and glycerine, etc., had failed. *(Ibid.)*

SULPHURIC ETHER IN EPIDIDYMITIS.—A. Assadorian, M. D., Resident Surgeon to Charity Hospital, New York, reports that he has seen several cases of acute epididymitis relieved in two or three days by the application of sulphuric ether to the inflamed organ. His plan is to elevate the bedclothes by a basket-work or hoop, so as to favor free evaporation. The testicles being elevated by oakum, a piece of lint is wet with the ether and laid over the inflamed testicle and cord, and kept *constantly* wet. It is necessary to direct the patient to make the application regularly, as the cure is retarded if the application is not continuous. The usual quantity of ether required is about three bottles of Squibb's ether fortior. (*Ib.*)

CONDENSED MILK.—Mr. L. Kofler has analyzed several samples of condensed milk which were manufactured in Switzerland by German and English companies. They were all found to be the genuine article, concentrated by evaporation, and were made durable by the addition of pulverized sugar. (Druggist's Circular.)

TO REMOVE RUST FROM SURGICAL INSTRUMENTS.—Red rust may be formed on the polished surface a thousand times without materially corroding the metal, provided it be removed soon after it has formed. To remove red rust cover the rusty portion with common olive-oil, and rub it in well with a woolen cloth. After it has stood a few hours, rub the parts with finely pulverized slaked lime, or Spanish whiting, until the rust is all removed. If red rust is allowed to accumulate until the polished surface is corroded, sweet-oil and a severe rubbing will seldom remove it. The entire surface must be repolished with emery, or some other grit, before black rust will disappear from polished steel or any other metal. *(Ibid.)*

TEST FOR CALOMEL.—Put a little of the suspected calomel on a clean knife-blade, moisten with alcohol, and rub with a cork. Pure calomel does not attack the steel; but corrosive sublimate, or calomel contaminated with the sublimate, produces black spots. *(Ibid.)*

REMOVAL OF NITRATE OF SILVER STAINS FROM WOVEN TISSUES.—Chloride of copper completely removes, even from colored woven cotton tissues, stains occasioned by nitrate of silver; the tissue is to be afterward washed with a solution of hyposulphite of soda, and next thoroughly washed with water. From white cotton and linen tissues nitrate of silver stains are more readily and effectually removed by applying dilute solution of permanganate of potassa and hydrochloric acid, followed by washing with hyposulphite of soda solution, and rinsing in plenty of fresh water. By these means the use of the highly poisonous cyanide of potassium is rendered unnecessary. *(Ibid.)*

TEST FOR ARSENIC.—A new and very delicate test for arsenic has been discovered by Bettendorff. Its sensibility is so great that it is said to be capable of detecting one part of arsenic in a million parts of solution; and the presence of antimony does not affect it. In order to apply this test, the arsenious or arsenic liquid is mixed with aqueous hydric-chloride (hydrochloric acid) until fumes are apparent; thereupon stannous chloride is added, which produces a basic precipitate, containing the greater part of the arsenic as metal, mixed with stannic oxide. *(Ibid.)*

HEMORRHOIDS.—Suppositories containing one-tenth of iodoform are used by Hillairet against indurated hemorrhoids. In a short time the tumors soften and wither away. (*Ibid.*)

CURE FOR OBESITY.—Dr. Gibb, of London, recommends the use of bromide of ammonium to those who suffer from excess of fat. When taken in small doses it will absorb fat, and diminish the weight of the body with greater certainty than any other known remedy. (Canada Medical Journal.)

NEURALGIC PILL.—Dr. T. C. Osborn says that the subjoined combination is very effectual in cases of neuralgia: zinci cyanuretum, gr. vj; quinæ sulphas, gr. ix; morphiæ sulphas, gr. iss; ext. belladonnæ, gr. iij; Ft. pilulæ, No. vj. S. One pill every six hours, until the pain is relieved. (New Orleans Journal of Medicine.)

Notes and Queries.

WABASH VALLEY ESCULAPIAN SOCIETY.—We are indebted to Dr. W. E. Henry, of Mattoon, Ill., for a report of the proceedings of the above body, from which we make the following brief extracts.

Dr. Willens reports a case of crural hernia of ten years in a patient thirty-nine years of age, the mother of five children. Hernia became strangulated on July 1, 1869; tumor the size of a large hen egg; operation on the 7th, and radical cure resulted. The same writer gives an account of pelvic abscess in a patient twenty-seven years of age, mother of two children; her ill health dating from a miscarriage of four months, three years previous to the reporter's having charge of the case. The patient was very much broken down; had night-sweats, etc.; pain in the lower part of the abdomen and constipation. Abdominal examination discovered a tumor as large as an infant's head, extending three inches above the pubes, painful, fluctuating, and slightly movable; vaginal, uterus lower than normal, cervix directed to the right, fluctuation in the cul-de-sac;* rectal, tumor and fluctuation distinct. The tumor was opened through the vaginal wall by a small trocar; a quantity of light-colored, inodorous pus discharged; the sac was washed out with carbolized water, narcotic poultices applied to the abdomen, appropriate constitutional treatment instituted, and in a few months the patient was well. The opening per vaginam in such cases is preferable to one by the rectum or by the abdominal walls.

Dr. Chambers, of Charleston, Ill., reported a case of dislocation of the last dorsal vertebra, in a robust farmer, caused by his being caught, when driving into his barn with a load of door-frames, between the load and the lintel. Not only was the lower dorsal vertebra dislocated, but the spinous processes of two or three vertebræ above, and one of the ribs fractured; the inferior extremities were paralyzed. The luxation was reduced under chloroform. Morphia was first given; in a few days, bromide of potassium in large doses; in six weeks, strychnia, now replaced by tincture of nux vomica; then the electric battery was used. Nearly a year after the injury the patient's condition is as follows: general state good; can partially flex and extend left leg, slight motion in right; temperature normal in each leg, and both diminished in size; conscious generally when it is necessary to urinate or defecate, but can not control the sphincters; has had partial erections; appetite good; tongue clean; skin soft and warm; pulse when sitting up eighty, and when lying down seventy-eight. The case is one of peculiar interest, as it is, according to Dr. Chambers, the third reported.

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* Which cul-de-sac the reporter does not mention—an omission that we regret.—T. P.

CHOLERA INFANTUM.—A distinguished contributor writes from New York: "I have read the article by Dr. L. P. Yandell on cholera infantum, in your August number, with great interest. It should be published as a popular tract, and left at every house where there are children. It is not enough to write on this subject for the edification of physicians. . . . But the main object of this letter is to invite your attention to the use of strychnia in these cases. Turpentine also I consider only a little less valuable, while creosote is often essential to relieve vomiting. I think you will find too that thirst is often best relieved and refrigeration produced by cold enemata, as in fever. All along the Mississippi River, and also here in New York, periodicity is a very common complication. In the matter of diet, it is worthy of remark that in Louisiana and other southern states sweet potatoes are highly esteemed, but in my opinion the gluten of flour is often better."

THE SUBCUTANEOUS ASPIRATOR.—This instrument, so well described by Dr. Weist in the August number of the Practitioner, is now being made and is on sale by Otto & Reynders, of New York City. The inventor, Dr. Dieulafoy, has patented it; and, to cap the climax, Liebreich has secured a patent for the hydrate of chloral, not only on the continent, but in England. What will the Section on Ethics do with these benighted Europeans, as your able cotemporary of the Medical Gazette calls them? They certainly ought to be disciplined—indeed they must be.—R. T.

PROF. ALPHEUS B. CROSBY, M. D., of the University of Michigan, has accepted the chair of surgery in the Long Island College Hospital. He carries to his new field a ripe experience as teacher and practitioner, while his many excellent personal traits entitle him to high social consideration.

CORRECTION.—The article entitled *Notes on Medicine in China*, and credited to the Rev. Dr. Martin, of the University of Pekin, published in the April number of the Practitioner, was from the pen of Dr. John Dudgeon. The error in reference to the authorship arose from the fact that a note of introduction from Prof. Martin, which should have accompanied the manuscript, was mislaid or lost; and the *address* being in the familiar penmanship of an old friend, the paper was attributed to him. Dr. Dudgeon, whose Hospital Report we have noticed elsewhere, has investigated more thoroughly than any one living the various subjects connected with medical practice in China; by his superior professional abilities and self-denying labors he is accomplishing a most important work among the Chinese. This error corrected—and its correction justice both to Dr. Martin and Dr. Dudgeon required—we hope that each will be known to our readers in future numbers of the American Practitioner.—T. P.

TO THE READERS OF THE AMERICAN PRACTITIONER.

The subject of tetanus, being recently revived by the introduction of the Calabar bean and the hydrate of chloral, and receiving now general attention, we desire to obtain trustworthy data concerning it. The published record of this disease is wanting in so many particulars that few points connected with it can be positively decided. It is believed that if the unpublished experience of the readers of the Practitioner can be obtained, a sufficient number of cases can be gathered to correct to a great extent the present imperfect statistics of this interesting malady. Your coöperation is earnestly desired to this end. Responses have been so prompt and satisfactory in the few instances where this information has been asked, a hope is indulged that before the coming spring, when the subject will be reöpened in these pages, the reports of many hundred cases will have been accumulated from reliable sources.

While not wishing to instruct as to the manner of reporting cases, attention is asked to the subjoined form, as one which will facilitate tabulation. Brief replies to as many of the questions as can be answered are desired, especially in fatal cases.

1. *Age*, *sex*, constitution, *color*, and occupation of patient.
2. *Idiopathic*, *traumatic*, or puerperal. If traumatic, situation and character of injury, and condition of wound when tetanic symptoms were developed.
3. Season, temperature, and hygienic surroundings of patient.
4. *Time which elapsed after receipt of injury before development of tetanic symptoms.*
5. Muscles involved; the order and degree of their attack.
6. Pulse; temperature; seat and character of pain.
7. *Treatment.* Doses of drugs, method of administration, and *apparent effects of remedies.*
8. Duration of symptoms, and result; if fatal, the mode of dying.
9. Other noteworthy facts.

D. W. Y.

THE AMERICAN PRACTITIONER.

OCTOBER, 1870.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PELVIC RACHITIS.

BY JAMES T. WHITTAKER, A. M., M. D.

To the obstetrician the study of pelvic deformities is of great interest. Although these are comparatively rare in our country, their increase demands more attention for them than they have yet received from American physicians.

The existence of a deformed pelvis and its influence upon labor seems not to have been recognized by Hippocrates or his scholars. Dystocia was always occasioned by deformity or malposition of the fetus, or by complications of the cord or liquor amnii. In the sixth century, Aetius of Amida mentions a too firm connection of the pelvic articulations, which prevented their separation to a sufficient extent to permit the passage of the fetal head. The impossibility of such a separation was not shown until the time of Vesalius; his pupil Arantius (1572) first ventured the hypothesis of pelvic deformity, but the suggestion was supposed to be disproved by the accidental discovery by Severinus of a movable pelvis. Simple elevation of the pelvis by one of the femora of a criminal, executed ten days after labor, displaced the corresponding side of the pelvis a full inch above the other. Severinus, who was a firm believer in the ancient views of Aetius, lost no opportunity of displaying this condition to Parè, Guillemeau, and other authorities, and thus the absence of any mention of pelvic contraction in their works finds easy explanation. In 1694, Mauriceau *(Traité des malad. des femmes)* communicated his observations in seven hundred labors, acknowledging the possibility of pelvic deformity, but denying its frequent influence upon labor; and though he was on several occasions forced to perform the cesarian section for rachitis, his entire information is contained in the sentence "hunchbacks very often have badly shaped pelves." Mauriceau, however, had already recognized the rigidity of the coccyx in aged females. Siebold, in his classical History of Obstetrics, places the seventh grand epoch at the time of the first cultivation of this department as a science by Heinrich von Deventer (1651–1724), a period embracing also the discovery of the forceps. In his *Novem Lumen*, Deventer was the first to describe and portray various pelvic deformities, with their influence on parturition. He demonstrated the individual differences of pelves in form, breadth, depth, and connection, and was the first to call attention to the important modifications induced by different degrees of pelvic inclination. In the abnormities of size he distinguished between the *pelvis nimis parva*, *magna* and *plana*. Of these the last is characterized by partial contraction, with shortening of the conjugate diameter; the true rachitic pelvis. When this condition exists he warns—*Periculum est*, *ne cerebrum infringatur aut lædatur.* The value of time, the process of configuration or adaptability of the fetal head, and the great harm of forcible acceleration of labor, are detailed with an accuracy not excelled in works of our own times. To Deventer then is due the honor of having discovered the real center about which have been crystallized the facts that have led to a true understanding and appreciation of both physiological and pathological labor, and it was at once justly hailed as the dawn of a new era.

Contemporaneously with Deventer, La Motte, of Paris, recognized pelvic deformity, particularly that variety characterized by a contraction of the *conjugata vera*, as one of the most frequent causes of dystocia. The contraction was caused by an undue prominence of the sacral promontory. When time failed to produce delivery in these cases he resorted to version by the feet; failing in this, to cesarean section. In 1753 Levret accurately described the normal pelvis; established its divisions of entrance, cavity and exit; and fixed, though not accurately, the different diameters. His description of the various pelvic deformities showed a thorough knowledge of their nature; especially of the rachitic pelvis, which he declares the most frequent of all. The coincidence of deformity of the pelvis with that of the lower extremities, and the frequent occurrence of spinal without pelvic deformity, which he was the first to discover, are still acknowledged. His only means of diagnosis was the inability to introduce the extended hand, and this justified cesarian section.

With Smellie, a contemporary of Levret, the knowledge of pelvic deformity was fixed for all time. Accurate diameters were established for the normal pelvis, the means of estimating the *conjugata vera* from the *conjugata diagonalis* denoted, and rules of conduct laid down for the various degrees of contraction. His set of Anatomical Tables (London, 1754) have been hardly excelled since. The latter half of the eighteenth century and the beginning of the present witnessed the further prosecution of these studies. The rachitic, osteomalacic, synostotic, coxarthrocacic, scoliotic, and cyphotic varieties were rapidly distinguished, and various means of diagnosis employed. In these labors the names of Baudelocque, Stein, Osiander, Böer, Wigand, Naegele, and Michaelis, besides those above mentioned, are to be remembered.

Of all the forms of pelvic deformity the rachitic is universally admitted to be that of most frequent occurrence. Of four hundred and fourteen cases just reported by Stanesco *(Recherches Cliniques sur les Rétrécissements du Bassin, Basées sur* 414 *cas; par G. C. Stanesco:* Paris, 1869*)*, four hundred and two were rachitic. This curious disease then must interest the obstetrician as well as the surgeon. Since, however, in the vast majority of cases, the obstetrician only encounters it in its irremediable stage, the discussion of its pathology would here be out of place. Suffice it to say that it is hereditary in certain families, and hence often enough congenital. When both parents are affected the child seldom escapes. Tuberculosis and syphilis of the parents are also positive predisposing causes; indeed a cure of congenital syphilis is rarely effected without the sequela of rachitis.* Diseases of children themselves, particularly chronic intestinal catarrh, or any condition interfering with nutrition, as artificial nourishment, may likewise induce this disease. The direct cause of the deformity is the flexibility and softening of the bones, whereby prolonged pressure in any one direction may effect disfiguration. This softening is present only during the first stage of the disease — consequently in infancy and youth. In the second stage, the bones thicken in their abnormal direction to the solidity of eburnation in the third, in which all amenability to therapeutics is lost. The rachitic pelvis now presents four distinguishing characteristics (Tarnier's Cazeaux): 1. Contraction of all the diameters of the superior strait, particularly of the antero-posterior; 2. Diminution of the sacral curvature; 3. Escape of the inferior strait; or, in a few cases, increase in transverse diameter; 4. Enlargement of the pubic arch. Besides the influence of prolonged pressure above referred to, the action of the pelvic muscles exercises a most marked effect in producing or increasing the deformity. This was most admirably exhibited by Prof. Kehrer, at the late Medical Congress of Germany, by means of demonstrations with caoutchouc upon pelves decalcinated with nitric acid. "The form of the flat rachitic pelvis is caused by the weight of the body and the counter-pressure of the femora, upward traction of the spinal extensors on the extremity of the sacrum (with diminished action of the abdominal muscles), and traction of the rotators on the coccyx."

The diagnosis of this condition in pregnancy and parturition is not attended with difficulty. The disease may or may not be present in other parts of the skeleton. The estimation of the *conjugata vera*, by subtracting from one half to three fourths of an inch (according to pelvic inclination) from the *conjugata diagonalis*, as measured upon the index finger, will afford an accurate evidence of the disease and its amount, and at once suggest the conduct to be observed in the management of the case.

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* Children's Clinic Lecture, by Monte; Vienna, March 8, 1869.

The various instruments devised for the estimation of pelvic deformity remain but as testimony of the ingenuity of the mind of man. Such were the *appreciateur du bassin* of Coutoly; its modification, the *pelvimeter pluriformis* of Delberger; the *manus armata* of Stark, Kurzwich, and Koeppe; the *manus filigera* of Myer; the pelvimeters of Stein, Wigand, Osiander, and Aitken; and the pelvigraph of Martin, for internal measurements; the compasses and calipers of Baudelocque, Davis, Ritgen, and Martin, who is still their earnest advocate, for external measurement; and those curious instruments for combining both external and internal of Wellenburgh, Boivin, Van Huevel, Kirsch, and Brest. An insuperable objection to all the internal forms is the danger of injury to the vaginal walls by forcible distension, and to the external and combined forms, the inaccuracy of results. The method at present adopted in Prague—viz., the tape-line around the sacrum at the lumbar junction, and around the trochanters to the symphysis, which, after allowing for adipose development, should yield thirty-four inches—is more practicable and reliable. But even there the finger is also employed; and after all there is no means so certain, so trustworthy, and so constantly available as that with which nature has provided the obstetrician. The human hand in its range of action embraces the whole science of pelvimetry.

The value of regarding the pelvis with some degree of attention in even slight cases of deformity may be best illustrated by the two following cases, which have recently occurred in the author's practice.

January 25, 1870, called by Dr. Murray to a case of protracted labor, in which version had been repeatedly essayed. The patient had been forty-eight hours in labor without progress. A previous child had been delivered with forceps. Nervous prostration, quick pulse, feeble pain, and dry tongue indicated the necessity for immediate interference. The head was recognized at the superior strait, feet in the right upper quarter by external palpation; no heart sounds audible. The vagina was hot and dry, the os fully dilated, and the head resting obliquely across the brim; *conjugata vera* three and a half inches. The case then was one of pelvic deformity, with a dead child. Of course there was but one indication—viz., extraction. Having only Simpson's short forceps, it was determined to resort to podalic version. This failed, even under full anæsthesia, and in different positions. With great difficulty the forceps were adjusted, and with still greater the head was delivered; the shoulders descended without rotation, which it was impossible to effect. Prof. M. B. Wright was then called in, and after a half hour's effort succeeded in delivering the shoulders transversely. The mother made a speedy recovery. My own practice in this case was certainly not the best. The head, which was very large, should have been perforated at once, and thus the patient been spared at least two of the three hours suffering.

July 19, 1870, called by Dr. Mosenmeyer to a case of pelvic deformity, in which there had been no progress in the labor for twelve hours. A previous child had been delivered after craniotomy. The Doctor had recognized the case at once (it had previously been in the hands of a midwife), and requested me to operate; the funis was prolapsed and cold, the head resting above the superior strait, a large caput succedaneum; the pelvis was of the flat rachitic type, and only three inches in the conjugate. The long and elegant French forceps now used in the Paris Maternité were easily adjusted, and the handles intrusted to Dr. M. Braun's trephine was inserted between the blades, and carefully forced against the head. Perforation under such circumstances was easy; being effected, the forceps were compressed, and the brain substance streamed out in mass. Delivery was completed in twenty minutes.

The conduct to be observed in all these cases at term—premising of course a head of natural size and density—may always be determined at once by the amount of pelvic deformity. Yet there is not that uniformity of sentiment upon this subject that might be expected in a department whose truths are so nearly axiomatic. The following is the range as given by Barnes (Obstetrical Operations, 1870): From four inches, the normal diameter, down to three and a half inches, nature may alone effect delivery; from three and a half down to three inches, the forceps or version by the feet may accomplish birth, even with the child living; from three inches down to two inches—when there is a breadth of three inches in the transverse diameter—craniotomy and cranioclasm or cephalotripsy are indicated; below two inches, even down to one and a half, there is still hope from the chain-saws before the case be delivered over to cesarian section—"that last extremity of our art and the forlorn hope of the patient." (Davis by Barnes.)

Can nothing be done to avert the effects of this disease? In its early stages, in infancy, if recognized—and its symptoms are so plain that it always should be—treatment will be useful. Salt should be administered early in the disease, even more for infants than is given for adults; strong meat broths, rare beefsteak, cod-liver oil, and avoidance of amylaceous food, have yielded excellent results. Above all things should particular attention be given to the posture of the child; constant lateral decubitus deforms the head. The symmetry is to be maintained by frequent change. Premature support upon the arm, as nurses carry children in the sitting posture, exercises a decided influence upon the pelvis. These facts should always be specially regarded in the female child. Of course these remarks belong most properly to the domain of general medicine. When the obstetrician encounters a case it is his duty to institute a careful examination, and advise the patient of the hope left in the timely induction of premature labor.

The proximate cause of the difficulties attendant on parturition Barlow, in an essay on midwifery, imputes to habits of dissipation and voluptuousness, and deterioration of physical strength, rather than to an immediate infliction at the fall. "With her Creator's fiat that in sorrow should she bring forth," comments his reviewer, "we have nothing to do here; but of the fact that civilization and refinement increase the original difficulty we can entertain no doubt; for the contrast between the upper and lower classes of society, and still more between the savage and the civilized, is too manifest not to carry conviction to the mind of the most inattentive observer." *

When Dewees wrote his work on midwifery he stated that the combined knowledge of all the American practitioners would not convey a good knowledge of a deformed pelvis. "City and house narrowness now do not offer more room for a new-comer than do their slender pelves." Luxury has swept rachitis in, and with it germs of other disease. The weed falls into rank soil. Can it be culled ere it spreads?

CINCINNATI, No. 101 W. Seventh St.

HYDRATE OF CHLORAL IN INSANITY.

BY JAMES RODMAN, M.D.,

Physician to the Western Lunatic Asylum of Kentucky.

A few days since I prescribed for a gentleman of delicate organization and spare frame forty-five grains of the hydrate of chloral, with the view of securing a comfortable night. Like doses for several previous nights had secured almost unbroken sleep of from seven to nine hours duration; failing in its effect but once, when a repetition of the dose after an interval of two hours produced the result desired. On the night of which I speak, again finding the quantity insufficient, he, without my knowledge, was permitted by his nurse to take two hundred and twenty-five grains more, making two hundred and seventy grains; this large quantity having been taken in less than two hours. Deep sleep followed, which was regarded without concern by the attendant; and my attention was not called to his condition until seven or eight hours had elapsed.

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* The reader is referred to the very interesting accounts of labor in the Orient and in uncivilized lands, contained in Bland's Observations on Human and Comparative Parturition, and Siebold's History of Obstetrics. Compare also Exodus i, 16.

I found him sleeping heavily but quietly; his skin rather warmer than natural; pulse full, strong, and less frequent than in health; it was difficult to arouse him to any sense of his surroundings; pupils sluggish and contracted; congested eyes; respiration fifteen and normal. Sleep continued, except when by considerable effort he was sufficiently aroused to swallow a glass of water, for eighteen hours, growing, however, less and less profound. He is now well.

The treatment of this case was by no means energetic. It was confined, in fact, to affusions of cold water to the head, and they not frequently repeated, having him "walked" for a few minutes at a time between two attendants, with now and then causing him to breathe the vapor of ammonia through the nostrils. In this comparatively expectant treatment I felt justified by the circumstances of his case; his condition, taken as a whole, exciting no special alarm. But even if there was a chemical antidote to the poisonous effects of chloral—and I know of none—the lapse of time would have made its exhibition useless. His appearance upon waking was that of a man who was emerging from a fit of profound alcoholic drunkenness, with some confusion of ideas and unsteadiness of gait. No headache followed, nor nausea or vomiting. He had a keen appetite; a healthy pulse; warm extremities; but, strange enough, complained of a constant sense of chilliness, which passed away in a few hours.

In none of the few cases which I have seen reported, in the journals I receive, of the toxical effects of this drug has so large a quantity been taken in so short a time. The person of whom I write showed no special insusceptibility to its influence. When it was first exhibited it produced its usual effect, and tolerance had only just begun to be shown when this enormous dose was taken.

In the case reported by M. Noir, where chloral was given to produce anæsthesia during an amputation—which it accomplished—the dose was five grammes, less than one third the amount taken in the case detailed above. The effects produced were widely different. In M. Noir's case "the body was observed to be very cold; his pulse, which had been one hundred and twenty, became filiform and uncountable; he woke up in violent delirium, with vomiting and pain in the stomach, continuing nearly eight hours, leaving the patient in the extremest prostration." M. Noir suggests that "some of the symptoms which arose might have been due to the idiosyncrasy of the patient." I think it possible that the operation—amputation of the leg—also was effective in bringing them about. Conclusions are not to be drawn from single cases, but I now doubt if chloral is as dangerous an agent as has been supposed by some. My experience with chloral is large, and leads me to record myself as one of those who would advocate its use in preference to opium and its preparations, where a hypnotic effect is desired, for the reasons now generally understood—comparative freedom from the vomiting, nausea, and constipation which so frequently attend the use of opium.

As an anodyne it is much less certain in my hands, failing often to free from or even mitigate severe pain unless pushed to the point of producing sleep. It is certainly a boon to hospitals for the insane, giving quiet and refreshing sleep where noisy wakefulness was the rule. There are many cases in most asylums—those of acute mania particularly—in which opium is not admissible, exciting such persons still further and rendering them more wakeful and noisy. It is here that chloral is invaluable; it often completely bridges a most embarrassing and dangerous difficulty, laying the foundations of final recovery. When the effect of chloral is not well sustained—evanescent, as has been noticed by some who have used it—and opium is not well borne, I would suggest the use of both in moderate doses, at the same time, upon the hypothesis that that condition of the brain and nerves which forbids the use of opium alone is so modified, and for a sufficient length of time, as to allow the opium its common hypnotic effect.

I propose to try the effect of chloral as a substitute for alcohol in a case in which the passion for drink has subordinated the will completely, and the subject has no power of resistance when indulgence is possible. I do not offer my example as one for imitation; feeling, however, at the same time that if the maddening passion for stimulants can be allayed by an agent which produces quiet repose instead of the mortifying excitement and consequent exposure incident to alcoholic intoxication, that good has been accomplished. I wish to be understood as regarding this suggestion as the least of two evils merely.

HOPKINSVILLE, KY.

MALARIAL FEVERS AND THEIR TREATMENT.*

BY J. HALE, M.D.

Malarial fever differs in no material respect in the region of country in which I live from the disease as observed in other portions of the interior valley of North America. Intermittent, remittent, and pernicious are the three varieties of the affection commonly encountered. The latter fortunately is seldom met with now; and, as swamps are drained and the land brought under the care of the husbandman, it is rapidly disappearing. In its place, however, we have typho-malarial fever, which, though a less fatal, is generally a protracted, and not infrequently an exceedingly unmanageable, affection.

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* This paper, which was read before the Kentucky State Medical Society at its meeting at Bowling Green in April last by the chairman as the report of the Committee on Malarial Fevers, has been kindly placed at our disposal by its author. We wish our space would allow us to publish the whole of the report, but the crowded state of our pages obliges us to content ourselves with an abstract of that portion only which relates to treatment.

The several varieties of malarial fevers, though springing from a common cause and cured most quickly by a common remedy, are not all to be treated in just the same way. Temperament, idiosyncrasy, habits of life, age, season, etc., play in these as in other fevers an important part in their management.

In simple intermittent fever, quotidian or tertian, but little treatment is ordinarily required during the cold stage. If this stage be protracted, and accompanied by much pain in the back and limbs and head, opium in some form, hypodermically or by the mouth or the rectum, is *the* remedy. Warm, stimulating drinks are useful adjuvants. If there be irritability of the stomach, manifested by nausea and vomiting, sinapisms to the epigastrium, etc., do good. Alcohol in some shape, or the more diffusible stimuli, as ether and chloroform, are called for if there be much prostration. When reäction has fairly come on, iced drinks and crushed ice are demanded, and if the fever run high, sponging the entire surface with warm or cold water, or the use of the warm or tepid bath, as the patient may prefer, will materially shorten its duration.

In order to avert an expected paroxysm, we find that from twenty to thirty grains of quinine are necessary. We usually combine with this two grains of opium, or its equivalent of morphine, and begin its administration at least twelve hours before the chill is looked for. Unless there be something in the condition of the alimentary canal especially demanding interference, we seldom find purgative medicines necessary. If called on to use them, we are in the habit of combining ten or fifteen grains of blue mass with the quinia, which we give, as a rule, in the form of pills, always freshly made. This is a very brief outline of the course we have pursued for the last ten or fifteen years. We have seldom known it fail to avert the first paroxysm, and never, we believe, to prevent the second. A single paroxysm being averted, I have not found it necessary to give quinine before the lapse of seven days, and not even then except in patients whose systems seemed surcharged with the poison, or in whom, in previous attacks, the disease had recurred on that day. I I think I have observed a peculiar tendency of the affection to recur in different people on different but given days. In some, relapses occur almost always on the seventh day; in others, on the fourteenth; and in others again, on the twenty-first day. After this period we have not observed the disease to show any special regularity of occurrence. This fact is of importance, as it enables us to anticipate and thereby prevent relapses.

In the treatment of remittent fever the one object is to bring the patient under the influence of quinia *with the least possible delay.* In our opinion it is *entirely unnecessary* to resort to any preparatory treatment whatever before beginning the quinia, and all time spent in doing so is that much time lost. Purgatives, as a rule, are ill borne in this variety of fevers; and, if used at all, they should be administered with great caution, since from their tendency to lower the vital powers they have seemed to me to heighten the intensity of the malarial poison. In cases where there is constipation and associated biliary derangement, I am in the habit of giving calomel along with the quinia—say ten grains of the former with twenty grains of the latter, divided into two doses and given at intervals of four hours, to be followed in four hours after by castor-oil if necessary. The bowels being moved, the quinia is continued in doses of ten grains, to which I add five grains of Dover's powder, until the fever is arrested. When this is effected, the Dover's powder is omitted and the quinia reduced to five grains at a dose, and given for the succeeding twenty-four hours. This course of treatment has seldom failed in my hands to arrest simple remittent fever in from two to three days. Complications which might require a modification to some extent of this simple treatment are, in my experience at least, exceptions to the rule. A greater error than the belief, still entertained by some, that inflammation contraïndicates the use of quinia could not well exist, and it has contributed vastly to keep up the unfortunate differences which exist among physicians in the management of the several forms of miasmatic fevers. For our part, we never hesitate for a moment to give quinia in full doses in malarial fever, no matter what the complication may be; for we believe it unquestionably to be the only means we possess for arresting the disease with certainty and in a reasonable time. We are of those who believe that there is far less risk in giving quinia at once, and in all cases, than there is in allowing the fever to run its course uncontrolled. We have seen too many cases accompanied by excessive cerebral irritation, convulsions, etc., speedily relieved by quinia alone to leave any room for doubt on this point. In 1857, we visited a boy ten years old, sick for a week with fever. Two attending physicians had abandoned all hope of his recovery. We found him with a high fever, great headache, red conjunctiva, and almost constant delirium, which had existed for several days; he had had several convulsions; he was extremely restless; his eyes were intolerant of light; his tongue was red at the edges and tip, with yellowish white center; urine scanty and high-colored. The history of the case, along with the fact that malarial fevers were very prevalent in the neighborhood at the time, led me to conclude that I had to do with a remittent fever; I thereupon ordered five grains of quinia every four hours, until he had taken five or six doses, applied cold affusions to his head, and sponged the surface with tepid water. The next day the patient was clear of fever, perfectly rational and quiet, and in two days more he was up.

In the fall of 1869, a boy five years old had a chill in the morning. Soon after reäction was established he was taken with violent convulsions, which continued at intervals throughout the entire day. In the evening, when we saw him for the first time, he was wholly unconscious, and in a state of almost constant convulsion. We directed him to have three grains of quinia and one grain each of calomel and Dover's powder, every three hours, until he got five portions. On the following morning he was convalescent. I might fill this paper with similar cases which have fallen under my notice and were followed by the same gratifying results.

The treatment of pernicious fever is that of the other varieties, except that it is far more active. The prostration during the cold stage is always considerable, often extreme, and admits of no delay. The patient must be tided over it without loss of time. Reäction is best secured by chloroform internally in half-drachm doses, or sulphuric ether in double that quantity, given every twenty or thirty minutes, and small doses of opium. Chloroform has often appeared to me speedily to bring about reäction after alcoholic and all other stimuli had completely failed. I need hardly mention the various external means, etc., for shortening this stage, nor that medicines when out of the question by the mouth, by reason of nausea, and in extreme cases unconsciousness, should be given by the rectum.

The moment reäction sets in quinia should be administered in very large quantities; one drachm and sometimes a drachm and a half of the drug being necessary to prevent a recurrence of the paroxysm. We have found that to combine opium and piperine with the quinia has seemed to add to the efficiency of the latter. Ten grains of quinia, five grains of piperine, and a half grain of opium, given every two or three hours until six or eight doses are taken, is our usual formula. We have seldom known the second paroxysm to recur when the treatment has been such as we recommend; and should it do so, it is always in very mild degree, and susceptible of easy management. Pernicious fever very rarely proves fatal unless the patient is carried off during the opening paroxysm of the attack, provided it be treated in the manner mentioned.

Dr. J. J. Woodward, U. S. A., in his work on Camp Diseases, has described with great accuracy, under the title of typho-malarial fever, a form of the disease which is exceedingly common in southern Kentucky, and none too well understood by many practitioners, and in itself a most important affection. In the earlier stages of this variety or complication we have found the treatment advised in ordinary remittents sufficient to subdue the malarial element. But quinia has no influence whatever over the typhoid feature in the disease, which runs the course of ordinary typhoid fever, and should be managed in quite the same way.

We are aware that it is contrary to the received opinion on the subject, but our experience has led us irresistibly to the conclusion that the intercurrent congestions, irritations, and even inflammations which occur in marsh fevers should not be regarded as contraïndications to the use of quinia.

There is a peculiar cachexia produced by malarial poisoning, which commonly presents itself in subjects who have had repeated attacks of malarial fever, but may occur in those who, while exposed to the poison, have escaped the development of any febrile phenomena. The most prominent symptom of this condition is a peculiar anæmia. The patient becomes pale, bloodless, with an icterode hue of the skin. Accompanying this condition, and often preceding it, is an enlargement of the spleen, which is sometimes tender on pressure, and almost always the seat of a vague, uneasy feeling, amounting in some cases to actual pain. In the advanced stages of this affection œdema of the lower extremities nearly always appears, or there may be general anasarca with ascites. In the treatment of this condition removal from the malarial to a healthy locality is of the first importance. This, with chalybeate tonics, is usually sufficient for cure. Where, however, this can not be done, iron, quinia, and the regular and systematic exhibition of aperients are required. The following combination we have found most efficient in such cases:

R.—Sulphate of iron, sulphate of quinia, of each, ʒj; sulph. of strychnia, gr. j; socotr. aloes, ℈j. Mix. Make into thirty pills, one of which should be taken three times a day.

We have seldom found it necessary to use any other remedy in malarial cachexia, whether attended or not by dropsical effusions. The iron and quinia seldom fail in these cases to reduce the enlarged spleen, in a few weeks, to its normal size. We have seldom found it necessary in these cases to resort to hydragogue-cathartics or diuretics. The iron and quinia, with aperients, seems to fulfill every indication of treatment in these cases. Citrate of iron and quinia has often yielded equally good results. The ferro-cyanuret of iron, which stands high in the estimation of some physicians in chronic malarial poisoning, is in our opinion inferior to either of the preceding. We have used in some obstinate cases, especially those attended by frequent relapses of intermittent fever, in alternation with the iron and quinia, a combination of quinia and arsenic, according to the following prescription, with very salutary effects.

R.—Quinia sulph., ʒj; liq. potassæ arsenitis, ʒiij; acid sulph. aromat., ʒj; tr. rhei; syrp. zingiber., āā ℥ij. M. Signa. A teaspoonful three times a day after meals.

We have purposely abstained from alluding to many of the long list of antiperiodics, so called, for the reason that in our hands a large number of them have proved themselves useless in the marsh fevers which are met with in practice, and because we have, in our opinion, a genuine specific for them in the sulphate of quinine.

OWENSBORO, KY.

THE IMMOVABLE APPARATUS IN DISEASES OF THE KNEE-JOINT.

BY R. O. COWLING, M. D.

Demonstrator of Anatomy in the University of Louisville.

The leading points of treatment of diseases of joints are so well established, and statistics are so conclusive as to the good results which follow when they are properly pursued, that we are able to account for the ghastly part which diseases of the knee-joint bear among the causes for amputation only by the fact that the conditions, usually considered necessary for their relief while in a curable stage, are such as can not well be carried out.

I am led to hazard this statement by my own experience in amputation performed for disease of the knee, and after a careful study of the operation, witnessed a large number of times, in the practice of others. I do not think it too much to say that in fully three fourths of the cases which resulted in this unfortunate issue the joint might have been restored to usefulness, or at the worst the limb preserved at the expense of anchylosis, had the principles which are acknowledged to underlie the treatment of the affection been duly observed.

Rest, the earliest suggestion of common sense, forms the basis of all joint therapeutics. It is only as to the best means of obtaining this and the comparative value of subsidiary measures that authorities differ. Prof. Gross's expression is that "rest must be absolute, unconditional, and persistent;" and Mr. Hilton, in his interesting lectures on Rest and Pain, says, in regard to repair, that the "maximum of result is co-equal with the minimum of disturbance."

I do not expect in these remarks to offer anything new in regard to the mere principles of treatment of joint diseases; my object is rather to direct attention to the starch bandage as being the most simple and efficient means for obtaining this unconditional rest and minimum of disturbance. I am the more ready to undertake the task because I believe that, as a dressing in the affection now under consideration, it possesses advantages over any other apparatus. It is superior to any form of splint as a mere mechanical support to the parts; while, by securing both equable pressure and temperature, it not only renders topical applications unnecessary, but accomplishes better than they do the ends for which they are used. In but one writer on diseases of the joints which we have examined is any prominence given to this dressing as a means of obtaining rest. Mr. Athol Johnson, in Holmes's Surgery, extols its use in certain cases, and directs its preparation in the manner in which we apply it; Mr. Barwell does not even allude to it; Mr. Holmes Coote describes an imperfect modification of it; Mr. Erichsen recognizes its value, but does not trust to it alone as a local measure, and advises removal of a portion of the apparatus immediately over the joint that topical applications may be made. Such surgeons as do not trust to recumbency alone to obtain rest of the joint use splints of leather, gutta-percha, etc., and in all their dressings provision is made for direct applications to the parts, and all recommend either forcible or gradual extension of the limb. The starch bandage necessarily makes local medication impossible, and would seem at first sight to prevent further extension; yet, as I shall attempt to show, it really tends to straighten the limb by removing the causes which keep up the flexion.

The explanation of the flexed position into which a limb falls when the joint is inflamed is, first, because the synovial sac is then most capacious, and allows a greater effusion; second, because the articular ends of the bones are then least in contact, and pain from pressure is thus avoided; third, as expressed by Mr. Hilton, because the nervous supply to the interior of the joint and the muscles which move it being from the same trunks, muscular contraction is thus excited, and the flexors prevail by virtue of their superior force. The practical lesson to be drawn is that the position assumed by the limb is the instinctive effort of nature to obtain rest, and can not be interfered with, violently at least, save at the expense of this. Mr. Holmes Coote says: "Whatever may be the joint, let us, if we wish to preserve the patient's limb, avoid the practice of forcibly setting it right, as it is so called, at once, even if inflammation be acute." Yet a no less authority than Mr. Barwell directs, as a first measure, that the limb be changed from the "unnatural" position in case of the knee to one nearly straight, under chloroform if necessary; and this not only in acute articular osteitis, where a fear of anchylosis, at an inconvenient angle, might be an excuse, but in simple cases of synovitis, for the mere purpose of rest.

It is also a matter of surprise that after his investigations into the practical relations between rest and pain, Mr. Hilton should be an advocate of immediate extension. Whatever may be the case with other joints, it is too obvious that with the knee flexion, unless excessive, secures the posture for rest. It is the position which the limb naturally assumes when we are asleep, or when voluntary muscular force is withdrawn. But agreeing with Mr. Coote that immediate extension is dangerous, we go still further and deny the necessity for extension of any kind. The limb spontaneously returns to its natural position as the causes which produced the flexion are removed. To effect this no measure is comparable, in my opinion, to the starch bandage, properly applied.

Mr. Hilton has called attention to the fact that the cutaneous filaments around the joints spring from the same trunks which supply their interior and the muscles which move them; hence, he says, the power of local medication in these diseases.

So far as this is directed against pain, it will be found that simple protection of these nerves from the atmosphere, which is effected in an admirable manner by the apparatus, is followed by equal if not better results. We have examples of this practice in the treatment of burns and acute articular rheumatism, where the wrapping with cotton-wool so often speedily alleviates the pain ; and, however imperfect analogical reasoning may be, direct trial will convince any one of its similar power in the diseases under consideration. But, it may be asked, is it only necessary to relieve pain? What shall take the place of the counter-irritants, the absorbents, and the alteratives which were aimed at the inflammation and its effusions? We answer that, under whatever name it go, all treatment is to secure physiological rest, whose indication within certain limits is ease; with this difference, if we may express ourselves in simile, in one instance we add to the force disturbed, in the other we arrange the weights already in the scale. But, dropping fanciful reasoning and coming to a plain statement of facts, with the arrest of pain other symptoms do subside, effusions are absorbed, inflammation decreases, and flexion gives way.

Aside from this, as a mere splint, as has been observed, the starched apparatus is superior to any other that can be applied. However accurately pasteboard or gutta-percha may be molded, when once hardened they have no power to accommodate themselves to any changes in the limb ; and, as Mr. Holmes Coote says, if it does not fit to a nicety, the splint has no power in checking the spasmodic movement which is so distressing to the patient. The thick cotton lining of the starched apparatus, on the other hand, is sufficiently elastic to accommodate itself within certain limits to changes, whether from swelling or shrinking; and by being split and bound afterward, by the roller or loops, this power may be increased as much as may be necessary without the removal of the apparatus, which in itself is a source of serious disturbance. Again, the firm yet bearable support given by completely encircling the limb, deemed objectionable on account of excluding topical applications, allows the limb to be moved as a whole, and when necessary kept in a dependent position, and permits in many cases the patient to move on crutches in the open air — often necessary to a cure. So obvious an advantage in the immovable apparatus would not be alluded to did not a great number of the profession seem persistently to overlook it. Two eminent practitioners—one in a leading medical center — have told me that they considered the sand-bags the simplest and most effective means of treating simple fractures of the leg. Two months in bed a simple measure! when two days at most are necessary.

We have expressed the opinion, at the beginning of this paper, that the reason why knee-joint diseases were allowed to terminate in disorganization was that the conditions deemed necessary to their relief were such as could not well be carried out. We may add that the means themselves are often imperfect. The movable splints are often deficient in securing rest. Their frequent changes, with renewed applications of topical remedies, not only become extremely irksome, but are sources of serious disturbance. As regards recumbency, few persons will consent to it; children often can not be forced to it; and the poor are not able to avail themselves of it. How far the starched apparatus obviates these difficulties we leave our readers to judge.

It will be observed that we have made no attempt to separate the various diseases of the joint. It is only with their treatment as depending on rest that we have to deal. That there are cases which do not demand the apparatus we can not deny; but whenever mechanical support is required the occasions, we believe, are rare where we should neglect to avail ourselves of this means. Constitutional remedies, directed against the vice that produced the disease, will of course be required.

We have confined ourselves to the knee-joint—which is involved, however, in eighty per cent. of cases—because the apparatus is most effective here. To the ankle and elbow it can also be applied; at the hip and shoulder it has little power.

In the July number of this journal, in a paper on the use of the apparatus in fractures, Prof. D. W. Yandell called attention to its power over pain, spasmodic action, and swelling, and explained his manner of applying it. In the main, the same method has been employed by the writer, who in fact received his first lessons on the importance of the apparatus from that gentleman. The points insisted on are that the limb should be well enveloped in cotton wadding, especially thick on the affected joint; that the apparatus should envelop not only the diseased joint, but as far as possible the muscles which move it; and that there shall be no stinginess in material. Three layers of bandage, with well-saturated splints—a long one behind, and a shorter one at either side of the knee—will remove all doubts as to proper solidity and protection from the atmosphere. Dr. Y. directs the many-tailed bandage, which has the recommendation of economy in material—allowing otherwise useless rags to be employed—and it can also be better saturated with stiffening mixture and more easily applied. It will be found, however, best to put a dry roller immediately over the cotton, which allows proper compression to be made, and avoids the mess which is otherwise likely to follow. The roller, when on, to be well saturated, the splints then applied, and over them the many-tailed bandage. We have found the egg and flour mixture best for stiffening. One word in preparing it: trust the separation of the whites from the yelks to some one experienced in the matter, especially in warm weather. In regard to the early splitting of the bandage, we may say that the precaution is not so necessary as in cases of recent fractures, where swelling is more imminent, but should not be omitted when a return visit can not be made in reasonable time. When required to be done, the gorget, which is found in most operating cases, and which is not likely to be used for anything else, is by far the most convenient instrument to use. Mr. Tufnell has recommended this instrument—but he uses its handle only—as an ordinary director to protect the parts beneath, cutting down upon its groove with a sharp knife. Our habit has been to put the beak of the gorget under the apparatus at either end, and, pressing outward from the limb, at the same time the cutting edge is directed against the apparatus, which is divided easily, and without risk of injuring the parts. Dr. Yandell uses a modification of Seutin's pliers, which answer an excellent purpose. I ask pardon for these details of minor surgery; but I am certain that many must be ignorant of the manner of applying the apparatus, or its excellences would have been more generally recognized.

Let the apparatus be applied to the limb in the position in which it is found; when dried, let the patient be moved according to his comfort. Let him be urged, in chronic cases, if not to exercise on crutches, at least to sit in the open air. So long as the case progresses favorably, as evinced by absence of or decrease in pain, there need be no curiosity to see how the joint looks. At the end of two or three weeks the apparatus may be removed, that it may be reäpplied more closely, and accommodated to the decreased flexion of the limb. Finally, convalescence should be most carefully watched; and, even after we feel justified in laying aside the apparatus, exercise should not be permitted until it is believed the structures are entirely free from disease.

The following cases occurred during my last term as one of the attending surgeons at the Louisville City Marine Hospital, and serve to illustrate the efficiency of the treatment I am now advocating.

CASE I. *Syphilitic synovitis.*—Wm. M., aged twenty-four, a German porter, had syphilitic sarcocele, which had necessitated the removal of the testicle. The wound healed readily, but a week after the operation he was attacked with a sharp pain in the right knee. After swelling had taken place the pain left him, and he was able to walk, but with a stiff joint. Fourteen months later he was admitted to the hospital. His knee was greatly swollen and exquisitely painful. The limb was flexed; had not been able to bear his weight on it for some time previous; sleep was difficult; anodynes locally and internally were used; the patient kept in a recumbent position, the knee supported on pillows; iodide of potassium and cod-liver oil ordered; treatment kept up for two weeks without abatement of symptoms. The immovable apparatus was then applied as a local measure; next day the patient reported that pain had left him soon after the apparatus was put on; had slept well for the first time in a month; ordered to keep as much as possible in the open air. In two weeks the apparatus was removed. Pain, swelling, and flexion had entirely disappeared; and, walking as well as ever, he left the hospital. Within a week afterward he enlisted in the army, passing the examination of the surgeon on duty at this place; was sent to Newport Barracks. Engaging in drinking and scuffling on the boat, swelling had returned when he reached the post, and he was rejected. The patient returned to the hospital, and on the same treatment as before symptoms were speedily alleviated. Four weeks after his return, on examination, there is no swelling; pain has disappeared; the limb is straight, but there is some stiffness. The apparatus will be continued until liability of the disease returning is supposed to be removed.

CASE II. *Strumous disease of the knee-joint following exposure.*—Peter C., aged fifteen years; teamster. Symptoms had come on after exposure to cold and wet weather: swelling and stiffness in the right knee-joint, but without much pain. Continued walking for a year, when it became so painful and the limb so contracted that he resorted to crutches. Soon after, when he was admitted to the hospital, emaciation was extreme, the joint enormously swollen and very painful, and the limb contracted to an angle of about one hundred and twenty degrees; knee-cap immovable; organic changes had apparently taken place. Saw the patient with Dr. Singleton, who was then in charge of the ward. We considered it probable that it would become a case for operation. Ordered apparatus, with cod-liver oil and whisky internally. In eight days the bandage was removed on account of looseness; pain had greatly subsided, and swelling somewhat diminished. Treatment continued; patient to be kept in the open air. In three weeks the apparatus was removed to examine the parts. Swelling much reduced, and pain almost gone; could move the limb slightly, which was now nearly straight. Treatment continued. At present date, two months after his entrance into the hospital, he feels no pain whatever; can walk comfortably, but is not allowed to do so without his crutch. When last examined the knee-cap was freely movable. His appetite is good, and he is gaining flesh daily.

CASE III. *Disease of the knee-joint following injury.*—R., an adult German, had disease of the right knee-joint, attributed to injury received some months previous to admission. Great pain, and distortion of joint; especial prominence at inner tuberosity of tibia; flexion of limb at about one hundred and thirty-five degrees. The patient being otherwise in good condition, the cure was trusted to the apparatus above. He passed out of my hands, but reported better at my subsequent visits, and shortly after the completion of my tour of service left the hospital, well enough to walk away.

LOUISVILLE, SEPTEMBER.

A CASE OF CHOLERA INFANTUM, WITH REMARKS.

BY B. M. WIBLE, M. D.

George ——, aged twelve and a half months, who within four weeks had cut four teeth, and had diarrhea for several days, was taken, July 30th, at six P. M., with vomiting and purging of such severity that at six o'clock the next morning (July 31st) he was in collapse. I now saw him for the first time. His feet and hands were cold; features shrunken; countenance anxious; pulse barely perceptible. He exhibited the most imploring desire for water, which I allowed as freely as he would take it. The water taken was quickly ejected from the stomach, and more was then given. The discharges from the bowels were liquid, and still very copious. I gave (a remedy at hand) a tea-spoonful of chalk mixture, containing one third tincture of kino, and repeated it every fifteen minutes, but to see it thrown up almost as soon as swallowed. I then ordered two thirds of a grain of sugar of lead, with one drop of laudanum, to be given every hour as long as the vomiting or purging continued; I also directed, as a drink to be used as a partial substitute for water, a tumbler of ice-water, to which was added the white of one egg, twenty grains of bicarbonate of potassa, and ten grains of common salt. Absolute quiet enjoined.

Half-past eight A. M.: condition same; lead had been retained: treatment continued; he took the drink greedily. Twelve o'clock M.: condition unchanged; continued treatment; at the suggestion of a lady present, I allowed in addition, as a drink, a tea made of parched rice and water. Six P. M.: discharges gradually diminished, being now small, liquid, and dark; during the day had taken about four grains of sugar of lead, twelve drops of laudanum, several tumblersful of the prepared egg-water, at least one tumblerful of the rice-tea, and a considerable quantity of ice-water besides; slept none; thirst still great; countenance still indicated distress: omitted the lead, and directed a tea-spoonful of the chalk and kino mixture to be given every two hours through the night, with a drop of laudanum when restless.

August 1st, eight A. M. Extremities warmer; pulse perceptible. During the entire night the thirst was insatiable, and the drinks were given freely. Discontinued the chalk and kino, but directed two drops of laudanum if purging returned. Ordered veal broth and the drinks. Six P. M.: had taken about a tea-cupful of veal broth, and freely of drinks, which he occasionally threw up; had several small dark-colored ejections from bowels; found considerable warmth of skin; had slept a little during the day, but was restless and still thirsty: ordered tepid bath, lime-water and milk, and two drops of laudanum when necessary to allay restlessness and control the bowels.

August 2d, ten A. M. Had taken freely of lime-water and milk, but only two drops of laudanum. The bath appeared to soothe him; slept after it. Two large liquid and dark dejections during the night. A moderate allowance of veal broth was allowed; lime-water and milk to be continued; also a drink, *ad libitum*, of syrup and aromatic sulphuric acid—forty drops of the acid in one ounce of simple syrup—a tea-spoonful of this to one fourth of a glass of water.

August 3d. Late in the afternoon of yesterday the child vomited and purged twice copiously, apparently with much pain in the bowels, after which he rested well; he had passed some urine, and toward morning appeared strikingly better. Continued treatment.

August 4th. About ten o'clock last night had one discharge from the bowels, attended with pain, for which he took a tea-spoonful of the chalk and kino mixture, with two drops of laudanum. This morning he appears convalescent.

August 5th. Bowels rather active; child cross. Directed a mixture containing twenty drops of laudanum, three drops of creosote, two scruples of bicarbonate of potassa, and two ounces of mint-water. Dose, a tea-spoonful after each excessive discharge from the bowels.

An occasional dose of the above was required for several days. To-day, August 30th, the patient is quite well.

I regard this case as one which illustrates the value of the free allowance of drinks. The thirst—in this case the most urgent I have seen—seemed to indicate that the system needed fluids. The blood no doubt had lost much of its aqueous element by the copious watery purging; and the thirst was a pleading of nature for its supply. The drinks may have also tended to soothe the irritable mucous membrane of the stomach. It is true that the greater portion of the fluids taken were vomited up, but a part must have been carried into the circulation. The potash, table-salt, and albumen were added to the drink for the purpose of furnishing an artificial serum for absorption into the blood. I doubt the utility of the albumen, as it requires digestion before it can enter the circulation.

The acetate of lead served to lessen the vomiting and purging, and thereby prevent the further loss of the watery element of the blood. When I first saw this case it was exceedingly unpromising, and I believe it was rescued from immediate death by the astringent action of the sugar of lead. In the early part of the treatment I doubt if the opium had any effect. The small quantity given, mixed with so much fluid in the stomach, could hardly have been absorbed into the circulation in any appreciable quantity.

Here is one case of recovery at least without a particle of calomel or any mercurial whatever. There was no indication for calomel in this case. When I first saw it the vomiting and purging were so active that I did not choose to add fuel to the fire by giving a purgative; and until the patient was quite convalescent the bowels had a tendency to too great activity; therefore at no time could I find the shadow of an excuse for its use. On the contrary, if I had given small doses of calomel in this case, with the unreasonable view of exciting biliary secretion, I should only have increased the tendency to purge, interfered with nutrition, and in all probability have destroyed the patient. Under the influence of what I believe to be fallacious theories, a large number of the physicians of this western country have become wedded to the use of calomel, in this and many other diseases, so that they feel they neglect a duty if they fail to use it. Discarding all theory, my own experience has taught me that calomel, given as an alterative, or as an agent to excite the secretions, in the usual parlance, is one of the causes of the great fatality of cholera infantum. In the opinion that calomel is not needed in the treatment of the disease, I am supported by Tanner, Smith, J. Forsyth Meigs, and by nearly all modern writers on the subject. Purgatives are often required in the treatment of cases of summer-complaint, and then calomel may answer the purpose as well as castor-oil or rhubarb.

In protracted cases the success of treatment will greatly depend upon care in the diet. Indigestion is an important feature of the disease. All crude articles of diet therefore should be excluded. Starchy food is not well borne by very young children, nor in those a year and more old is it always digestible. Those who suffer some lesion of the mucous membrane of the bowels will often crave certain articles of food. Generally such cravings indicate a return of the powers of digestion. The physician should not allow the gratification of such craving unless it be for food digestible and wholesome. The system is needing articles of nutriment which will restore the quantity and quality of the blood to the standard of health. Too often nurses will allow the patient forbidden articles of food because these are desired. The child recovers, and the physician is afterward informed that the recovery of his patient was due to such diet; but he should not be thus misled. He is not apt to learn the disastrous effects of forbidden articles. In the present state of our knowledge I know we can not appreciate the peculiarities of the digestive powers, nor of the wants of the organism for certain articles of nutrition; but such ignorance should not tempt us to run into the absurdity of allowing articles of food which pass the stomach unchanged, gripe the bowels, increase the diarrhea, and still further tend to exhaust the patient.

LOUISVILLE, SEPTEMBER.

A CASE OF OVARIOTOMY.

BY DAVID W. YANDELL, M. D.

The following is one of six cases of ovariotomy performed in Louisville, within the last two years, by different medical men, five of which, from one cause and another, proved fatal. It was my intention to collect notes of all these cases, and embody their leading features in a paper for this journal. But reports of the most cruel character as to the nature of the tumor in the case which I am about to report having been circulated by the physicians who saw the young lady, at her home in Texas, when the abdominal enlargement was first observed, I am requested by the lady herself to record her case here, and singly. I gladly do so as an act of justice to a brave and Christian woman; and, that additional weight may be given to my testimony, I give the names of the distinguished gentlemen who witnessed the operation. The circumstances connected with the case will explain the style in which it is written.

Miss Mary A. Phelps, aged twenty-two, an orphan, lived with her uncle, Capt. A. Harwood, at Eagle Ford, Dallas County, Texas. Her constitution was good, and her health excellent. In February, 1866, her menses were suppressed, to return in the following August and September, when they again disappeared. Some abdominal fullness was now noticed. Medical advice was sought to restore the catamenia. The abdominal enlargement increased. A considerable tumor was detected in the left side. Miss P. was pronounced by her physicians to be pregnant. Time went on, and the abdomen increased enormously in size. In April, 1869, the patient came from her home in Texas and placed herself under my care. The day after she reached Louisville, my friend Prof. Mussey, of Cincinnati, then on a visit to this city, saw the case with me; he pronounced it at once a multilocular ovarian tumor. My father, Dr. L. P. Yandell, and the late lamented Prof. Powell concurred in this opinion; Prof. James M. Bush, of Lexington, and Prof. Henry Miller both confirmed it. Miss Phelps was removed from the house of her aunt, Mrs. Chamberlain, to St. Joseph's Infirmary, where, on the 10th of May, I operated on her, in the presence of Profs. Miller, Powell, and Rogers, and Drs. James M. Keller, Newman, Scott, Coleman Rogers, Cowling, Blackburn, and Singleton, all of this city, and Professors Palmer, of Detroit, and Parvin, of Indianapolis. Prof. Miller, himself a veteran ovariotomist, kindly gave me his skillful assistance. All necessary precautions as to the temperature and moisture of the air of the room, etc., having been taken, chloroform was administered by Prof. Rogers. The catheter introduced, and the bladder emptied, the patient was pronounced ready for the knife. I made an incision in the middle line of the abdominal walls, from the umbilicus to just above the pubic symphysis. Profs. Powell and Miller separated the edges of the wound. The tissues immediately over the most prominent part of the tumor were so thinned that the cyst-wall was laid bare by almost the first stroke of the knife, without the use of a director. There was no hemorrhage. My hand, carried in upon the anterior wall of the tumor, and passed as far as possible around it, met with some adhesions on its upper and left side only. These were carefully but readily broken down by the fingers. Finding the *short* incision insufficient to allow the extraction of the tumor, without lessening its size, I thrust a large trocar into the protruding cyst and evacuated a considerable quantity of yellowish serum. The tumor was but little diminished in bulk. I plunged the trocar into other cysts, through the walls of the first, and thus occupied some time in these efforts to drain the tumor. The contents of some of the cysts were very gelatinous; too solid to flow through the canula. I tore with my hand through the walls of the cysts, breaking them down in every direction. The tumor still proved too large to be brought out through the original cut. I extended the incision almost to the ensiform cartilage. Drs. Miller and Powell lifted the tumor out with considerable effort. I transfixed the pedicle, which was of medium length, with a needle armed with strong whip-cord, and tying this securely cut the tumor away. It weighed twenty pounds; and Prof. Miller, who made a rough estimate of the amount of fluid evacuated from the several cysts, thought the tumor would have weighed in its original state between thirty and forty pounds. Its greatest length was twenty-nine inches; its breadth twenty-seven inches; its thickness seventeen inches. The wound was closed by silver sutures and adhesive strips; the ends of the ligature were brought out at its lower margin; the whole was carbolized, and the patient placed in bed. She got an opiate and a soup. On the third day her temperature rose to one hundred and two degrees. I made slight traction upon the ends of the ligature, which was followed by the discharge of a table-spoonful of purulent matter. Twenty-four hours after, her temperature fell to ninety-nine degrees; convalescence proceeded without interruption. On the thirteenth day the sutures were removed; union was complete, except at the lower margin of the wound, which was occupied by the pedicle. The ligatures yielded to slight traction, and came away on the fifty-fifth day. In eight weeks after the operation the catamenia were restored; they returned at the expiration of three weeks, and have continued regularly at that interval; previous to the development of the tumor they showed themselves every four weeks.

Miss Phelps returned to her friends the following fall, and in letters recently received from her says her health has been uninterruptedly good.

LOUISVILLE, SEPTEMBER.

Reviews.

Lectures on Clinical Medicine. By A. TROUSSEAU, late Professor of Clinical Medicine, Paris, etc. Vol. III. Translated by JOHN ROSE CORMACK, M. D., F. R. S. E., etc. The New Sydenham Society, London, 1870.

PLEURISY.—*Paracentesis of the chest.* A paper which ap-appeared in a recent number of this journal from the pen of Dr. Todd, to which Dr. Coleman Rogers added a summary of the indications for thoracentesis, the manner in which it should be performed, etc., would seem to render further notice of the subject unnecessary at this time. But paracentesis of the chest appears to us to have been practiced by so few physicians, at least in this part of America, that we believe we can do our readers no greater service than by giving them M. Trousseau's views concerning its uses. Professor T. contributed more perhaps than any other continental physician to its introduction into general practice, and has gone further than any in pointing out the varying conditions which render it necessary.

In the chapter on acute pleurisy he counsels that an inflammation of the pleura should never be allowed to run on too long, "lest an effusion which was originally serous should become purulent;" and adds: "There are also pleurisies which are purulent from the first;" "in proportion to its duration, pleurisy becomes less and less curable;" "the quantity of the effusion regulates the time at which paracentesis is indicated;" "the general symptoms and oppression of breathing are fallacious indications;" the only trustworthy signs are those furnished by auscultation and percussion; the latter particularly furnishes the most reliable indications as to the "opportune moment for thoracentesis;" "paracentesis ought to be performed with the least possible delay when the effusion completely fills the serous cavity;" "if patients thus situated are not operated on and yet survive, they are exposed to consecutive dangers almost as serious as those they have gone through."

The instruments used by Professor T. in paracentesis are a bistoury or lancet—he prefers the latter—for dividing the skin, and a common trocar. In order to avoid the entrance of air into the pleural cavity—although this is a thing of small moment even in hydrothorax, and altogether immaterial in chronic empyema—he converts one extremity of the canula into a kind of membranous valve by fastening over it a bit of wet gold-beater's skin or bladder, which, if properly done, he says effectually prevents the admission of air. He prefers to reach the pleural cavity through the sixth or seventh intercostal space, from above downward, at about half to three fourths of an inch external to the outer edge of the pectoralis major. Parallelism, or a want of it, between the internal and external openings is not of material consequence; though in acute purulent effusions treated by simple puncture, and where at the end of some days the wound usually reöpens spontaneously, if the opening be too subcutaneous, the pus will incline to burrow beneath the integuments, and give rise to troublesome fistulæ. Our author thinks thoracentesis less dangerous than abdominal paracentesis. His practice is to withdraw the entire effusion at a single sitting. When, in cases of genuine effusion, no fluid follows the introduction of the trocar, it is in consequence of the instrument not having perforated the layers of false membrane which accumulate on the pleura in the earlier period of the attack, or because the patient breathes only with the lung of the healthy side, and hence fails to distend the diseased side sufficiently. The first of these difficulties is overcome by tearing through the obstruction by means of a probe or crotchet-needle passed along the canula, or making a new puncture in another intercostal space. The second is corrected by having the patient cough, or make full inspiration, or strain as if at stool. A single tapping generally suffices in simple acute hydrothorax; and where the fluid is reproduced it is never to the extent of the original effusion; generally it is absorbed. To expedite the work of absorption our author gives digitalis, and paints the affected side with the tincture of iodine, which as a resolvent he considers equal to blisters. So much for serous effusions in the pleura.

We come now to "suppurative pleurisy, which is essentially a serious disease, and indeed generally proves fatal, the cases in which recovery takes place through the unaided efforts of nature being quite exceptional." The same may be said where "the disease is purulent from the beginning, and of simple pleurisy which becomes purulent." In operating for *purulent effusion*, you puncture directly with a trocar, empty the fluid, and dress as in simple hydrothorax. It sometimes though rarely happens "that there is no new effusion; or the effusion may recur and be evacuated by the bronchial tubes, which is a still more unusual occurrence, and one which relatively is very favorable." In almost "every case, however, the purulent fluid reäccumulates," and finds issue through the original wound. In rare instances the "pus escapes only in small quantities, the chest becomes flattened, at the same time the lung resumes its place, and the cure is accomplished without the occurrence of pneumothorax." The rule, however, is that the pus is discharged in very large quantity; "this being replaced by air entering the chest, we have hydro-pneumothorax, a condition which eventually necessitates surgical interference." In such cases the wound is enlarged with the bistoury, that a larger canula may be introduced, which, after being bent so as not to injure the lung as it expands, and its rim covered with a rubber ring to prevent excoriation of the skin, is allowed to remain. It should fit the opening accurately. Here "the introduction of air into the pleural cavity ceases to be a cause of dread," as in order to alter the pyogenic surfaces our author advises the use of injections of iodine or some other irritant fluid. It has already been said that in serous effusion the entire mass of fluid should be emptied at once. In empyema, on the other hand, a portion only of the accumulation is allowed to escape. The following solution is then thrown in through the canula: tincture (Fr.) of iodine, fifty parts; iodide of potassium, two parts; distilled water, one hundred parts: to which is added an equal quantity of tepid water. The patient is directed to shift his trunk in such way as to carry the injection to all parts of the pleural surfaces. A portion of the fluid being now allowed to flow out in order to prevent toxic effects from the iodine, the canula is closed, and the chest encircled with broad strips of adhesive plaster; subsequently the canula is opened daily to allow a part of the matter to escape, and the injections are repeated, augmenting or diminishing their size and strength according to the tendency of the pleural cavity to contract, and "to the greater or less fetor of the fluid which it contains, and its greater approximation to the character of laudable pus. The injection is then repeated only once in two, three, or four days," though the canula should still be opened at least once in every twenty-four hours. "It may be necessary to continue this treatment for a long time;" in children our author has kept it up for six months. "If there is one species of purulent pleurisy which seems to baffle all the efforts of medicine, it is that to which puerperal women are subject." Death seems to be the "almost inevitable issue" of such cases; yet even in these thoracentesis affords a chance of recovery.

Traumatic effusion of blood into the pleura—Thoracentesis. The most interesting facts in this chapter were obtained by experiments, made many years ago by our author, on horses wounded in the chest, for the purpose of studying the subject.

Where the wounds in these animals divided the larger vessels of the lungs, profuse hemorrhage simultaneously into the pleura and the bronchial tubes speedily produced death. Where the injured vessels were of smaller size, the blood effused into the pleura and bronchi, compressed the lung in such manner that the hemorrhage soon ceased. At the autopsies made forty-eight or seventy-two hours after the injury, the "lips of the wound of the lung were inflamed, and the pleura surrounding it, to the extent of several centimeters, participated in the inflammation ; a plastic exudation was then thrown out, which formed adhesions with the serous membrane, and became intimately amalgamated with the fibrinous mass occupying the course of the wound, to which it had become closely adherent. The wound was in this way obliterated throughout its entire course by a fibrinous clot, and its lips were covered by a fibrinous disk, adherent to the pleura, to the lips of the wound, and to the plugging fibrinous clot. It bore a considerable resemblance to a large fibrinous nail, the stem occupying the course taken by the wounding instrument, and the head being flattened upon the lung to which it closely adhered."

Blood escaping into the pleura coagulates almost immediately, and is absorbed with astonishing rapidity. When it is unaccompanied by the presence of air it is comparatively innocuous, "scarcely irritating the serous membrane more than food does the stomach, or than urine irritates the bladder." When, however, air finds its way, along with the blood, into the pleural sac, and we have pneumothorax added to the hæmothorax, the blood acts as a foreign body—it putrifies ; and in the horses experimented upon by M. Trousseau the poor creatures were quickly overwhelmed by pleurisy. It follows from the above, first, that to puncture the chest in hæmothorax is not only to lose the invaluable assistance afforded by the compression exercised by the mass of effused blood upon the extremities of the bleeding vessels, but also to prevent the formation of the "plugging" clot described by our author; second, that the violent coughing almost invariably excited by thoracentesis "will be peculiarly apt to increase the hemorrhage, and break down the plugging clot as fast as it forms;" third, that the exceeding rapidity with which the blood coagulates makes paracentesis for its removal "as senseless as it is useless;" fourth, it is "impossible to withdraw the blood, on account of its coagulation, though the opening were infinitely larger than is generally made;" fifth, to attempt to do so is "at least injurious, and is frequently fatal." Our author cites the pleurisies which carried off the horses, in his experiments, when air was admitted into the cavity of the chest, as additional proof of the danger of thoracentesis in hæmothorax. "Absolute rest and very low diet are probably the best means of promoting absorption in hæmothorax." The fearful inflammation which follows traumatic hæmo-pneumothorax demands the same treatment recommended in empyema and in hydro-pneumothorax, practiced with the least possible delay.

Pulmonary abscess. Except as the result of metastasis or tubercular vomicæ, pulmonary abscess is very rarely met with. It is most frequent in children, as a result of lobular pneumonia. There is nothing special in its treatment, which, before the abscess is detected, is that of ordinary pneumonia. After the abscess is discovered remedies avail nothing, as the affection is situated beyond their reach.

Treatment of pneumonia. Frank inflammatory pneumonia tends, as a general rule, to spontaneous recovery. In the cases which do well there is a noticeable decline in all the symptoms between the ninth and eleventh days. The same improvement does not take place, however, in the physical phenomena, which remain often in full development for days after the rational symptoms denote convalescence. Our author asks, ought the treatment of pneumonia "to be expectant because recovery takes place spontaneously in a certain number of cases?" He answers in the negative, and says, whenever called to a patient suffering from pure and uncomplicated pneumonia, he loses "no time in resorting to the antiphlogistic treatment." But antiphlogistics with Prof. T. are limited to three preparations of antimony: emetic tartar, kermes, and the white oxide of antimony. He prefers the kermes for adults, and the white oxide in children. Tartar-emetic he seldom uses. He believes experience has taught him that venesection "seldom shortens the duration of the disease, and frequently retards complete return to health by weakening the patient." Yet he would not be classed among the detractors of bleeding, and denies altogether "that it brings in its train the disastrous consequences ascribed to it, provided it be practiced with due moderation." But in the "peculiar medical constitutions," as he puts it, "through which we haye passed in recent years," he has not found venesection necessary nor even useful. "*In respect of the present time*," recourse to the lancet is unnecessary, "just as in the past there have been medical constitutions which required it, and as there may be others also in the future demanding it." The only cases in which he allows himself to open a vein are those of great general plethora, "threatening to complicate the progress of the pneumonia." Here he sometimes, though most rarely, practices a single and not very large bleeding, and this even he has found very seldom necessary to repeat. When the stitch in the side is excessive, he applies cups, wet or dry, as the case may be, to the seat of the pain, or injects a solution of atropine under the skin. He usually combines a little digitalis with the kermes, as in the following, which seems to be his favorite prescription: Pills made with castile soap, kermes, and extract of digitalis, each of which should contain one and a half grains of kermes, and the sixth of a grain of the extract of digitalis. Of these from ten to twenty-five are taken during the day at stated intervals. Should they produce vomiting or diarrhea, he gives a drop of Sydenham's laudanum with each pill, until tolerance of the kermes is established. This treatment is continued throughout the whole of the acute stage of the disease; when the febrile symptoms yield the kermes is given in diminished doses, but is not discontinued altogether, until convalescence is fully established. He administers the antimony in the form of pills, in order to avoid the pustular inflammation of the mouth and throat, which is apt to follow the prolonged use of this substance when taken in solution.

As to blisters, he thinks them hurtful if used when the disease is at its height, and useless at a later period.

To sum up, M. Trousseau's antiphlogistic treatment, indeed apparently his only treatment, of simple pneumonia consists in an occasional single small bleeding in very stout persons of plethoric habit; a mild, local abstraction of blood, when the stitch in the side is very severe; a little digitalis; and the balance of the work is left to antimony. Antimony first, last, and all the time, administered in varying but always in large doses, is the one remedy on which he relies in simple uncomplicated pneumonia.

TO BE CONTINUED.

Transactions of the Indiana State Medical Society, 1870.

The annual meeting of this society was held in Indianapolis on the 17th and 18th of May, 1870. The meeting was largely attended, and an earnest, attentive devotion to professional work seems to have pervaded the assembly throughout its sessions.

"Man's Power over Nature and Medicines as means by which he aids and controls the Laws of Life" is the title of President Sutton's address, with which the volume opens. It is an effort to point out the superior position of man in the scale of created beings; to assert his ability to control nature's operations within certain bounds; to declare the medical profession to occupy a little higher position than any other class of mankind; and to rebuke those audacious professional skeptics who allow themselves to doubt that medicines can do all that is claimed for them, or question the infallibility of doctors. With the first proposition all will unite, and the second no one can justly dispute. The third is one of those comprehensive, vainglorious self-laudations that is common to doctors and every other profession or calling. It is none the less an error in fact, and a bit of bad taste it were better to suppress. Doctors, in the aggregate, are an average section of mankind—just as good as so many preachers — no better than so many navvies. They come into the profession by taste, persuasion, or accident, and their training for its active duties makes them neither better men nor worse than the training of other men for other duties. Dr. Sutton's sense of propriety and love of truth would be shocked at the idea that he could consent to claim for himself individually a superiority to other men of other industries around him; that they must look up to him as the light of the present and reverence him as the hope of the future; and yet he does not hesitate to ask this indirectly for the profession at large, nearly all whose members are his inferiors.

In relation to our fourth point in the presidential address, Dr. Sutton declares that we "know that there is a tendency at the present time, not only with the public at large, but even by members of our own profession, to distrust the power and undervalue the efficacy of the principal means by which we control the laws of life." If he means by this a disinclination to continue the more perturbating use of say venesection, blisters, calomel, jalap, tartar-emetic, and the like in the management of morbid action, then he is right, and all the world should say amen. But if he desires to convey the idea that the world is losing its faith in medicine generally he is greatly mistaken; for the multiplication of doctors of all styles, sexes, and colors, the endless variety of new drugs, with long certificates of value and artistic labels, that line and ornament the shelves of apothecary-shops, in addition to the great broods of fancy preparations issued in aggravating quantities from the laboratories of our so-called regular pharmaceutical manufactories, are so many irrefragable testimonies to the contrary. We think there is no hazard of error in asserting that the present calendar year will have more doctoring done in it and witness the administration of more medicine than any other since the world began. Looking at the world comprehensively, we believe that the consumption of medicine is enormous, is increasing, and ought to be diminished.

Physicians may be divided into three classes. First and largest, those whose reverence for the past forbids them to dispute any of its teachings, and who regard all changes in practice as arising out of change in the type of disease or the circumstances of the case, and never out of error in our ancestors. The third and smallest class are those who look upon the present science and practice of medicine as a fallacy and a delusion, resting on the presumptuous ignorance of the past and having but little better prospects for the future. The remaining class, intermediate between the others in numbers, are the influential men of the profession and the hope of the ailing world. They look on the teachings of the past as beaming with great wisdom in the midst of abounding error. In the present, they make a wide difference in the deference they pay to things asserted and to things proven; and even feeling and acknowledging that things seemingly proven to-day may turn out to-morrow to be phantom structures built on imaginary facts. Dr. Sutton ignores the existence of the middle class, and magnifies the third numerically, and amplifies its importance beyond the pale of reality.

Tempered by these considerations, we commend the address of President Sutton as the effort of a manly, earnest member of the profession, looking to improvement in himself, and seeking to excite in his brethren higher aims, nobler aspirations, and fruitful activity.

Next the president's address comes an "Essay on the Treatment of Puerperal Hemorrhage," by Professor Mears, of Indianapolis. Its author is a veteran practitioner, an energetic man, and a close observer. His paper is pointed, practical, and plain, summing up the experience and teachings of the profession, as verified by himself in most forms of puerperal hemorrhage—or hemorrhage of pregnancy perhaps one had better say, for the view covers the whole duration of gestation—and making salient some points wherein he has an individual treatment. For example, in his management of placenta prævia, we quote: "My treatment then, instead of detaching the placenta yet adherent, according to Professor Simpson, or only partially separating if the attachment extend above the lower zone, upon the theory of Dr. Barnes, is to proceed at once to clear away the coagula, introduce to the bleeding surface a small sponge saturated with the persulphate of iron, following with a firm tampon. I now administer ergot freely and await events, with the assurance some practice has afforded me that I should certainly save the mother, and very probably the child—achievements which my experience with other methods of treatment had by no means rendered probable." Prof. Mears has unwavering faith in ergot as an ecbolic, though the discussion of his paper brought out the fact that a number of his auditors were doubters in this behalf. The essay opens with this sentence: "Hemorrhage is acknowledged to be one of those most dangerous accidents to which the puerperal state is liable, whether it is in that form which precedes, accompanies, or follows labor." Certainly it is "*one* of the most dangerous accidents," but still it does not approach the fatality of puerperal fever, which, according to Churchill's tables, is nearly fifty per cent., while hemorrhage is about sixteen per cent. of those attacked; and in one hundred and sixty-three thousand seven hundred and thirty-eight deliveries, the rate of attack was one in one hundred and twenty-two. Almost every practitioner of much experience has encountered alarming symptoms from puerperal hemorrhage, but many an old doctor has never witnessed a death by it.

"The Utility of Ergot in facilitating Labor," by E. Mendenhall, M. D., of Zionville, is the third paper of the series. It is a summary of the opinions, pro and con, of many authors regarding the value of ergot in parturition; the writer's emphatic declaration of reliance on its virtues, and his plea for its more frequent use in cases where many judicious accoucheurs would prescribe "*wait.*"

Dr. F. J. Van Vorhis, of Stockwell, read a paper, entitled "Psychical Influence upon the Organization of Structures," wherein he advocated the idea that mind is not the product of matter, but exists independently of it; though it can make its manifestations only through matter. Dr. V. furthermore thinks that the mind exerts an influence on the structures and functions of the human frame of great interest, and refers to the impression of the mother's mental state on the physical organism of the fetus in her womb. The paper is short, but shows an earnest gleaner after truth in a field where the scant twilight of science enables the most devoted explorer to see but dimly.

The next paper is the narrative of a case of "Reduction of Dislocation of the Hip," by Dr. H. V. Passage, of Peru, who claims some originality in the manipulations by which he lifted the head of the bone into its socket from behind the acetabulum.

"Reduction of Dislocation of the Hip—Principles of the Flexion Method"—is the title of an essay presented by Dr. R. E. Haughton, of Richmond, who takes exception to Bigelow's claim to originality in his teachings about the Y ligament. Dr. H. also objects to some of the doctrines of Bigelow; shows us that some other surgeons have been mistaken; and demonstrates a good many other things connected with the hip-joint by the aid of drawings, which are presented in two wood-cuts in the volume under notice.

Dr. G. V. Woolen, of Indianapolis, furnishes a paper on "Syphilis—its Pathology and Treatment." He states that "it need hardly be said, as prefatory to this article, that it will be but a recapitulation briefly of some of the doctrines of the modern school of syphilography." The work the author thus designates for himself he has done in a very sensible and satisfactory way. In the administration of mercury, Dr. W. gives preference to the method by fumigation, and sustains his preference by arguments which seem to us quite fallacious, as do all others we have seen to the same end. But our opposition to fumigation is not entitled to much respect, for we have never given it a trial; having been satisfied with the simpler and, so far, apparently efficient method of administration by the stomach.

"Disease of the Skull—Four Operations for Removal"—by Dr. Wilson, of Carthage, is a rather prolix and diffuse history of the removal of the anterior part of the skull, from the orbits to the apex of the head, at four different operations, executed between March, 1866, and December, 1869, for supposed syphilitic degeneration of the bone. Four wood-cuts make the situation and extent of the operations entirely plain. The case is one of great interest and large instruction, showing what extensive and repeated operations may be done by a careful surgeon, to the eminent relief of suffering and the evident prolongation of life, the patient still surviving, with new bone over the entire space from which the old and diseased bone was removed.

Dr. C. E. Wright's paper on "Purulent Aural Catarrh" is another resumé of the present condition of an important but often neglected branch of practical surgery. Dr. W. epitomizes the views of pathology and practice of recent authorities, and adds something from his own experience.

The next communication is a note from Dr. J. A. Comingor, of Indianapolis, stating that he was appointed to report on the "Pathognomonic Signs of Nephritis," and adds that he "is acquainted with no pathognomonic signs of the disease that are not contained in the text-books upon the subject; hence it is deemed inexpedient to consume the time of this society, or encumber the transactions with knowledge that every physician's library should contain." With due deference to Dr. C., we think he is mistaken. We fancy that he ought to have hunted up from the various books just what the society asked for, and to have given it to them in his clearest and most concise language. Doubtless many of the members would have been refreshed by the recital, and the discussion that would have followed might have brought out great stores of latent knowledge from the members, that the Doctor's failure to comprehend the situation cut off all opportunity of presenting.

Dr. J. R. Weist, of Richmond, from a committee, made a "Report on the Board of Public Charities;" closing with a recommendation that the society appoint a committee to petition the legislature to enact a law providing for a state board of public charities, similar to those now existing in Massachusetts, Ohio, Illinois, etc.; which recommendation was followed by the society.

Dr. V. Kersey, of Richmond, on behalf of a committee, reported on "Medical Rank in the United States Navy," concluding with this resolution:

> *Resolved*, that in the judgment of this society it would be right for physicians—and we hereby recommend them, one and all—to decline service in the United States Navy till Congress shall, by legislation, secure to the medical staff rank, right, privileges, immunities, emoluments, and honors, equal to any of the most enlightened and civilized nations of the world.

This, we think, points out the exact platform whereon the medical fraternity ought to stand in this behalf; and the

Indiana State Medical Society did well in committing itself to this sentiment by adopting the resolution, and ordering a copy sent to the American Medical Association.

Here ends the papers in the transactions; and the pamphlet is concluded by the minutes of proceedings, the laws governing, and a list of the members of the society.

This volume of the transactions is not large—one hundred and sixty-six pages—but it has good material, is handsomely printed on tinted paper, embellished with a cut of the society's new seal, and, barring some inefficiency in proof-reading and some carelessness in the make-up of the minutes, the pamphlet is equal to the best, if not superior to any of its predecessors.

J. F. H.

Medical Diagnosis, with Special Reference to Practical Medicine. A Guide to the Knowledge and Discrimination of Diseases. By J. M. Da Costa, M. D., Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital, etc. Illustrated with engravings on wood. Third edition, revised. Philadelphia: J. B. Lippincott & Co. 1870.

Dr. Da Costa holds an enviable rank among the physicians of this country; he is to medicine what Greenleaf was to the law or Thornwell to theology. But he not only possesses that highest attribute of the mind—the capacity to weigh evidence correctly—but in a marvelous degree the power to elicit it. The bent of such an intellect as this turned naturally on diagnosis, and as a clinical lecturer his aim is chiefly directed in defining the precise nature and limit of disease. The book before us is the work of the first diagnostician in America. If it fail to reach the position we have given to the physician and the lecturer, it is because the generalities inseparably connected with the subject destroy, in a measure, the vigor which marked his search in individual cases; yet it is the best book on diagnosis extant, and the call so soon for a third edition shows how well the profession generally agrees with us in our estimation of it.

Messrs. Lippincott & Co. have issued the work in their usual beautiful style.

A Hand-book of Operative Surgery. By John H. Packard, M. D., one of the Surgeons of the Episcopal Hospital; author of a Manual on Minor Surgery, etc. With fifty-four steel engravings, and numerous illustrations on wood. Philadelphia: J. B. Lippincott & Co.

We perfectly agree with the modest preface of this book, that he who consults this volume "will find in it at least one good method, practically described, for every surgical operation in general use at the present day." Discarding all attempts at filling pages by describing multiplicity of methods, to be rejected, at best, in an "appreciation," the author gives only what the profession and practical experience have stamped as the best, and he gives this concisely and clearly. The work is profusely illustrated with engravings, which in the main are uncommonly correct. The operations are nearly all simplified; many in a wonderful degree. As a whole, it is an excellent book from a superior surgeon, and his brethren, we are sure, will give it a hearty welcome.

The publishers have done their part of the work in their best manner.

Clinic of the Month.

THE TREATMENT OF ENLARGED LYMPHATIC GLANDS.—Mr. Furneaux Jordan read a paper on this subject before one of the sections of the British Medical Association. The numerous modes of treating enlarged glands are remarkable chiefly for their want of success. The method now proposed, if carefully carried out, the author had never known to fail. The ordinary enlargement of lymphatic glands is due to inflammatory action. By far the most efficient remedy in inflammation of any organ is counter-irritation, if only it be established in the *proper locality* and to a proper extent. A blister will cure bursitis when nothing else will, and inflammation of a bursa does not differ from other inflammations. In enlarged glands, as in abscess, carbuncle, boils, and erysipelas, the best locality for counter-irritation is *not over* the inflammation, but around it or adjacent to it; in short, in an independent vascular region. In enlarged cervical glands, a large patch of iodine irritation at the back of the neck, which may be prolonged below the glands, will certainly prove successful in a short time. A shot-bag, as heavy as can be tolerated, should be applied over the glands, at intervals during the day; the patient being, for this purpose, in the horizontal posture. (Lancet.)

HYGIENIC TREATMENT OF DISEASE.—"Side by side with the use of medicine, and not second to it, is the so-called hygienic treatment of disease—the study and regulation of the vital forces. The influence that the physician exercises over the mind, and through the mind over the body; the soothing or the stimulation of the nervous power; the calming of exaltation or the stirring up of apathy; the quieting of the over-busy brain or the spurring of the flagging will; the repose of over-used powers or the awakening of suspended vital functions; the subduing of the over-sensitive skin or the stimulating of it where wan, muddy, and lifeless; the limiting of supplies to the over-fed frame or the repair of the wasted body by the proper kinds of food and stimulants; the bringing into play, and so again into existence, muscle that had become wasted and paralyzed by disease: these are among the aims the physician seeks to accomplish, and these are among the means which he seeks to employ irrespectively, but by no means necessarily, without the use of medicine: these are among the agencies which you hold in your power in the treatment of disease, and that you, each of you, exercise daily in coping with the various forms of malady, of ailment, and of constitution." (Extract from the Address in Medicine, by Dr. Francis Gibson, at the last meeting of the British Medical Association. *Ibid.*)

DANGERS OF CARBUNCLES AND FURUNCLES OF THE FACE.—An elaborate monograph entitled "Researches upon the causes of the special danger of Carbuncles and Furuncles of the Face," by J. L. Reverdin, presents the following conclusions: 1. Carbuncle and furuncle of the face present a special gravity. 2. This gravity is due to the ready complication of phlebitis. 3. Facial phlebitis causes death either by extension to the sinuses of the dura-mater, or in becoming the source of purulent infection. 4. Carbuncle of the lips has nothing in common with malignant pustule. 5. The invasion of the orbit by phlebitis, as shown by exophthalmia, is an almost certain indication of invasion of the sinuses. 6. Incision made as quickly and as freely as possible seems to be the best means to prevent and sometimes to arrest the phlebitic complication. *(Archives Générales.)*

DIFFERENT METHODS OF ELECTRIZATION.—The following is a *resumé* of the first part of an article by Dr. Duchenne entitled "Critical examination of different methods of Electrization:" 1. Localized faradization is an excellent and the best method of electrization in the treatment of atrophic paralysis, and chiefly of paralysis consecutive to traumatic lesions of mixed nerves. 2. Continuous currents and currents of induction, in equivalent doses, exercise an identical action upon constricting vaso-motors. 3. The therapeutic action of localized faradization is exercised from the periphery upon nutrition; first, in augmenting the tonic force of vascular constrictors by excitation of the ramifications of the sympathetic which accompany the arterioles; second, in rendering more active local circulation by excitation of vaso-dilators, of which the existence, demonstrated by experiment if not by anatomy, is moreover necessary as a moderator of constricting vaso-motors; third, in exciting the nerves directly concerned in nutrition, whatever the theory or mechanism of this action. (*Ibid.*)

CREOSOTE IN THE TREATMENT OF TYPHOID FEVER.—M. Morache presented a memoir to the Academy of Sciences, Paris, upon this subject, and sustained the following propositions: 1. Typhoid fever appears due to the introduction into the organism of a virus, of which the mode of action doubtless is the evolution of a ferment. 2. Creosote probably acts directly on this fermentation in modifying if not in annulling the morbid evolution. 3. More direct proofs failing, this action is shown by *(a)* diminution in the intensity of the fever; *(b)* diminution of the duration of the febrile period; *(c)* diminution of local and general typhoid symptoms; *(d)* local action upon the digestive mucous membrane. 4. Creosote should be selected in preference to phenic acid, which does not seem to give satisfactory results, and is not always as readily borne. 5. It appears rational to employ creosote in other infectious maladies having an evolution similar to typhoid fever—variola, for example. 6. If the action of creosote may be accepted in the treatment of an infectious disease due to an organic fermentation, nevertheless nothing authorizes attributing to it a prophylactic virtue. *(Ibid.)*

A NEW SIGN OF DEATH.—M. E. Dubout proposes a *new sign of death;* viz., dropping into the eye a solution of atropia. Whenever this agent has no action upon the pupil it can be affirmed that muscular contractility has ceased; that is, that life has entirely abandoned the organism. It would nevertheless be necessary to resort to a counter-proof, and that we can have in the action of substances which contract the pupil; *e. g.*, Calabar bean, a very simple means to avoid an unfortunate error. (*Ibid.*)

HYSTERICAL APHONIA.—Dr. Tanner says that he never fails to cure this obstinate nervous disease by means of electro-magnetism. He places the patient in a chair, gives her one handle of the instrument moistened into her hand, and with the other touches the tongue. The patient then screams out violently, and thus convinces herself and friends that she has *not* lost her voice. (Half-yearly Abstract.)

TREATMENT OF CHOREA.—Prof. Steiner holds that chorea in the majority of cases cures itself, though there are other cases which resist every remedial means. Certain remedies, however, ameliorate and shorten the duration of the disease in the first class of cases. In view of the anæmia so frequently present, Prof. Steiner orders iron, either alone or in combination with oxide of zinc, as in the following prescription: Ferri carbon. saccharati, 2 parts; zinci oxid., $\frac{1}{25}$ part; sacch. alb., 8 parts; M., ft. pulv. t. d. sumen. The diet should be easily digestible and abundant. If, after the employment of the iron for a fortnight, no improvement occurs, Prof. S.

resorts to the preparations of arsenic, by which the disease is often quickly and certainly cured, the general nutrition of the body and the appearance being at the same time much improved. He usually commences with one drop *per diem*, and increases the dose after three or four days to two, three, four, and five drops; then, if improvement has resulted, he withdraws the remedy in the same gradual way. Cold water, applied hydropathically, is sometimes very serviceable. If the disease owes its origin to rheumatism, the remedies appropriate to that diathesis must be administered. The subcutaneous injection of arsenicum, sulphur, chloroform, and morphia furnishes no satisfactory results. *(Ibid.)*

TREATMENT OF SIMPLE ULCER OF THE STOMACH.—Dr. C. Gerhardt says the aim of the treatment should be the protection of the ulcerated surface from the digestive action of the gastric juice. It should consist in the almost exclusive ingestion of milk, eggs, and meat, and in avoiding starchy or saccharine articles of food which give rise to the rapid development of acid; the meals should be frequent, in order that the action of the gastric juice upon the food may not be interrupted. It is necessary to avoid copious repasts, and especially articles of diet capable of swelling in the stomach; these in fact distend the base of the ulceration, excite pain, and expose the patient to the risks of perforation. When there is an extensive development of gas, advantage will be derived from the internal administration of carbon, and the application of cold compresses externally. These means sometimes suffice to bring about a cure. The employment of narcotics should be rejected; they produce no favorable result, and disturb the functions of digestion. One may, however, have recourse, in cases of obstinate vomiting, to the subcutaneous injection of morphia. Whenever there is acute pain recourse should be had to astringents; especially to the perchloride of iron, the nitrate of silver, and the subnitrate of bismuth. For patients who are weak and liable to hæmatemesis, Dr. G. particularly recommends the repeated administration of perchloride of iron in three or four-drop doses to a glass of water. It is recommended, in cases where the seat of the ulcer is known, that the patient be ordered to take such a position that the ulcer and the ingested fluid may come in contact. The nitrate of silver is given in one-grain doses, in pills or in solution; bismuth is prescribed in doses of from six to ten grains. *(Ibid.)*

STRYCHNINE AN ANTIDOTE TO CHLORAL.—It results from close experiments that strychnine, when administered after too powerful a dose of hydrate of chloral, diminishes and removes its effects, and without producing the noxious action peculiar to it. M. Liebreich therefore proposes to make use of injections of nitrate of strychnine as an antidote in accidents produced by a too energetic action of chloral or of chloroform. *(Ibid.)*

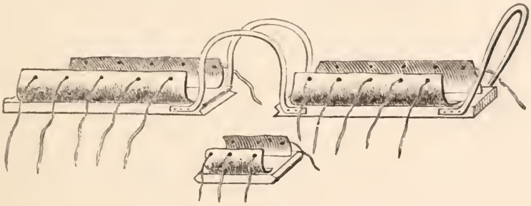
DANGERS OF CHLORAL.—When administered to man in health, in progressive doses of one and a half and two grammes daily, chloral determines (frequently on the second and third days) an exceedingly painful sensation in the epigastrium, acute colic, and nausea, with profuse perspiration. (*Ibid.*)

SOLUTION OF MORPHINE FOR HYPODERMIC USE.—The solution for the purpose should be an aqueous one, neutral if possible, and of such strength that six minims contain a maximum dose. A solution of morphia—one grain in six minims, the most convenient strength—may be made by first dissolving one drachm of the acetate (recently prepared) in about four fluid drachms of hot distilled water, adding a drop or two of diluted acetic acid, if the solution be not complete. Filter into a graduated measure, while hot, and the fluid being all passed through, wash the filter by sprinkling over it sufficient distilled water, that the whole filtered product when cold may measure exactly six fluid drachms. It is important that the acetate of morphia be recently prepared. The solution should not be kept long. When prepared as above it is almost void of color, but gradually changes to a vinegar-brown. If the acetate of morphia be not quite fresh, this color is produced in the solution when first prepared. Other salts of morphia might be used with advantage. Among these the so-called bimeconate is very soluble, and makes a tolerably stable solution; injected, it appears to be quite as active as the acetate, although it represents about one fourth less of pure morphia; but, being uncrystallizable, its composition as generally made may not be so uniform. The citrate is likewise a very soluble salt. The hydrochlorate and sulphate require upward of sixteen parts of water to hold them in solution; this prohibits their use for injecting hypodermically, as a large dose could not be conveniently administered by the syringe in ordinary use. As to the sulphate, this statement is opposed to that of Abl (quoted in Gmelin's Chemistry and Storrer's Dictionary of Solubilities), that it is soluble in two parts of water at 18.75° C. (about 66° F.) From repeated experiments, both with the freshly-prepared salt and others, this is found to be an error. This salt of morphia, which is easily crystallizable and very stable, is most preferred in the United States. *(Ibid.)*

SUBCUTANEOUS INJECTION OF BUBO.— Dr. Wertheim, attached to the syphilitic and skin department of the Rudolph Hospital, Vienna, states that he has given up all attempts at dispersing buboes by causing their absorption, and now treats them by a simple and efficacious procedure — subcutaneous injection. A solution of various substances, as morphia, camphor, sulphate of copper, etc., may be used as circumstances require, muriate of morphia (gr. iv ad aquæ dr. ij) being that which is usually preferable. The ripe abscess is punctured by means of a thick needle, or the tube of a strong Pravaz syringe; after most of the pus has been gently pressed out, the injection of eight or ten drops of the solution is practiced, the patient being taught himself to empty every three hours the fluid that may have collected. The injection is at first repeated daily, and afterward at longer intervals. Although not essential, it is better for the patient to keep in bed. The advantages of the method are that the pain in the abscess almost immediately ceases, and the other inflammatory symptoms steadily diminish; the thickened pus is gradually transformed into a thinner and thinner exudation, gradually decreasing in quantity, and in three or four weeks it ceases entirely, and no cicatrix remains. The secretion of pus is confined to the spot, and the surrounding induration gradually diminishes. (*Ibid.*)

Transfusion of Blood.—The following are some practical conclusions that have been formulated by M. Marmonier: 1. The operation of transfusion is not a difficult one to practice, and it requires no special apparatus; 2. The dangers of this operation are less than has been generally thought; 3. It is not necessary to warm the blood before injecting it; 4. One hundred and fifty or two hundred grammes of blood is generally a sufficient quantity; 5. It is not indispensable to defibrinate the blood; 6. Finally, this operation should be but an extreme measure, reserved especially for combating post-hemorrhagic collapse. (*Ibid.*)

A Knee-splint.—Dr. Packard recently exhibited at the College of Physicians of Philadelphia a splint for keeping the limb at rest after excision of the knee. The same might be employed in cases of compound fracture. The splint, for which accurate measurements should be taken in each case, consists of a wooden portion, upon which the entire limb rests; leathers are tacked on, near its edges, to come up around the limb and give it a lateral support, being laced together by tapes passed through eyelet holes. Additional steadiness may be given by the application of pasteboard splints to the upper surface of the limb. The peculiarity of the apparatus, however, consists in the arrangement for changing the dressings without disturbance of the limb. A portion of the wooden splint is sawed out, opposite the knee or other desired point, and the parts above and below are strongly bracketed together; a slide is then adapted to the gap, as in the cut, so that, the limb lying perfectly undisturbed, the slide may be withdrawn, the dressings changed, and the slide replaced. (See figure.)



An iron arch, screwed to the lower end of the splint, serves to protect the foot from pressure or lateral displacement; and by tying a piece of bandage between it and the brackets a sort of tent-like arrangement is made, so as to keep off the bedclothes from the limb. By crossing the tapes attached to the leathers of the slide, and tying them to the brackets, a greater degree of lateral support may be given to the affected part. When used, the whole splint is of course carefully padded with folded flannel, or raw cotton, each portion separately. (Amer. Jour. Med. Sciences.)

Treatment of Syphilis.—Mr. Morgan says he does not bind himself to any special rule of treatment. Some cases he treats mercurially, some by the inoculation and some by the sweating method; all have their recommendations and adaptability to certain cases. But where constitutional cachexia exists, he thinks the inoculation has, on the whole, been most satisfactory, though it is more troublesome to the surgeon, and perhaps tedious to the patient; while, on the other hand, it can not "go wrong," as mercury, though most carefully administered, occasionally appears to do. (Dublin Quarterly.)

Cerebro-spinal Meningitis.—Dr. Purcell, physician to the Cork Fever Hospital, describes three well-marked varieties of this affection. 1. The cerebro-spinal form, in which symptoms referrable to irritative disease of those parts are prominent; such as retraction of the head, pain and cramp of the muscles, delirium accompanied with fever. 2. The cerebro-spinal form, accompanied with purple blotches, appearing on the body or legs, where retraction of head and pain are prominent; and, *vice versa*, where slight retraction, the more prominent the rash. 3. The rapid variety, attended with purple blotches, embarrassed respiration and circulation, amounting to imperfect collapse, and followed by a state of sopor and insensibility, which advances to coma, excessive vomiting of green matter, if protracted by treatment, edges of rash become pustular, drying, and surface peeling off, leaving dark, blackish patches of coagulated blood; where pressure or irritation occur, the piece sloughs out, leaving a nasty, deep, excavated sore. *(Ibid.)*

Sea-tangle Tents.—The laminaria digitata possesses all the requirements of a substance necessary to dilate; thus it is light, clean, easily procured, can be made of any length and size, possesses remarkable properties of dilatation, does not become fetid from absorption of discharges, and is very easy of introduction; moreover, it is capable of being so managed that one or more can be easily introduced into the cervix, so as to occupy it completely, according to the narrowness of the passage which we wish to dilate. *(Ibid.)*

Notes and Queries.

PERSULPHATE OF IRON IN HEMATEMESIS.—Dr. Woollen, of Moorfield, Ind., writes that he has lately used Monsel's solution of persulphate of iron in an alarming case of hemorrhage of the stomach with the best result. "The patient was greatly exhausted, having for a day or two passed blood by the bowels and suffered repeated attacks of syncope. A few hours before I was called she had vomited some twenty ounces of blood, a large portion being of a bright scarlet color. Believing that the blood was still being poured out into the stomach, I gave her fifteen drops of Ellis's preparation, properly diluted, every two hours, until some six or eight doses were taken, with directions that if it should cause much uneasiness of the stomach it should be discontinued. The remedy was well borne, and the hemorrhage ceased. The usual dose, as stated by Ellis, is from three to five drops; but, if properly diluted, a much larger dose can be given. I have also used it with advantage in two cases of dysentery, occurring in old persons, after the acute stage had passed; the symptoms assuming a typhoid character, attended with thin, offensive, clay-colored stools."

PELVIC HEMATOCELE.—Dr. Wm. E. Hatcher, of Richelieu, Ky., reports a most interesting case of pelvic hematocele and pyæmia, in which recovery took place under the use of brandy, ammonia, quinine, egg-nog, milk-punch, etc. The subject was a healthy lady, twenty-three years old, married, but had never borne children. From the 5th of November to the 8th of the following March menstruation absent, and she believed herself pregnant; at the date last mentioned the menstrual flow appeared, continuing eight or ten hours, when severe pain in the abdomen occurred, constant desire to urinate, giddiness, and syncope, and the patient was almost pulseless. Upon abdominal examination a tumor could be distinctly felt, but none by vaginal or rectal; there was not even any bulging of the vaginal walls, nor fullness of the posterior cul-de-sac. Several hours elapsed before reäction took place. In three or four days, rigors and hectic; several days after, abscesses in various parts of the body, the first over the left scapula, but no evidence of any interiorly. On the 20th of March a sudden and free discharge of a large quantity of black blood from the vagina; no increase of prostration; gradual disappearance of the abdominal tumor and of pelvic symptoms. The purulent infection continued until the 15th of April, and convalescence was not established until ten days later. Dr. H. remarks, in conclusion, that had a vaginal tumor been discovered when suppurative action was first manifested it should have been evacuated; and that the case illustrates the fact that there may be considerable hemorrhage in the vicinity of the uterus, and no tumor discovered per vaginam or per rectum; and that even in pyæmia of the gravest character recovery may take place.

We wish to refer briefly to two or three points in this valuable report. As to the source of the intra-peritoneal hemorrhage,* of course it is impossible to approximate more than a mere probability. It would be of interest and value had the reporter stated whether there were other signs of pregnancy in addition to the menstrual suppression; but whatever the origin of the hemorrhage, it is true, as the Doctor found in his case,† "that pelvic effusions of blood, however great, can not give the sensation of a tumor prior to the work of encysting, which gives them, as it were, a solid base."

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* Independently of an extra-uterine pregnancy, the three best demonstrated sources of such effusions are apoplectic hemorrhage from the ovaries, rupture of one of the vessels of the utero-ovarian plexus, and hemorrhage from the tubes.

† Bernutz and Goupil, vol. i, p. 542.

As to opening the vaginal tumor, had such been discovered, when suppurative action was first manifested, we answer, Yes, if the tumor was an abscess; so if it was still a hematocele. Mr. Spencer Wells holds the following view as to puncturing pelvic abscess: "I am quite sure I am within the mark in saying that I have tapped from twenty to thirty cases of pelvic abscess. I can not recollect one death. I have known several cases of death where no puncture was made—some of them very painful cases—when I had urged puncture, and was overruled."

As to the general rule of non-puncture of hematoceles, the following passage from Courtz will be of interest:

> "According to Récamier, the treatment of hematocele consists at first in the puncture of the tumor per vaginam; but the hemorrhage supervening in a patient of Malgaigne, the purulent infection which has followed the puncture in some cases, and the knowledge of the natural progress of the disease, have successively chilled the zeal of the physician for this operation. M. Nélaton, who at first adopted this rule, was the first to limit its application, and to-day he resorts to it only in those cases where the tumor is liquid and the pains are very severe. This opinion has been generally received in France and abroad. Seyfert, physician to the Prague Hospital, has resorted to puncture but once in sixty-four cases which he has treated in four years."

RUDIMENTARY UTERUS.—Dr. G. Wheeler Jones, of Danville, Illinois, describes a case of rudimentary uterus that recently came under his observation. A married woman, twenty-six years of age, applied to him, stating that since she was fifteen years of age she had taken a great variety of medicine to bring on her "periods," but without avail. Upon examination, the mammary glands were undeveloped; pelvis narrow; external genitals under normal size; vagina about five inches in length, but without rugæ, and where the cervix uteri should be inserted into it there was found a small body about the size and shape of a common field bean, and in this there was an opening into which a fine probe could be passed three fourths of an inch. The most careful examination failed to detect any other representative of the normal uterus, or the presence of ovaries. Dr. Jones well observes that had such examination been made years before, a great deal of needless and therefore injurious medication would have been prevented.

CANCER OF THE BREAST.—Dr. D. R. Francis, of Savannah, Ohio, gives a case of cancer of the breast, in the ulcerated stage and with the glands of the axilla involved, which was greatly benefited by the local application and internal administration of carbolic acid.

PHYSICIANS AND THE LEGISLATURE.—An esteemed subscriber, Dr. John Stackhouse, writes: "The legislature of Kentucky will shortly convene. I beg to suggest to my brethren throughout the state that they urge upon their different representatives to support the following measures: 1. The passage of the registration bill; 2. The passage of a law making counties liable to physicians for attendance on the county poor; 3. The passage of a law preventing druggists and all other persons without license or diploma from prescribing or practicing as physicians; 4. The repeal of the present penalties attached to obtaining subjects for dissection." Dr. S. indulges the hope that concerted action on the part of the profession throughout the state will secure the necessary legislation in reference to these points.

THE AMERICAN PRACTITIONER.

NOVEMBER, 1870.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

LEECHES IN THE TREATMENT OF CERTAIN UTERINE DISEASES.

J. R. WEIST, M. D.

Although the value of local depletion by means of leeches in some of the many forms of uterine disease is insisted upon by observers of the widest experience, I am convinced that the general prejudice against blood-letting in any form that exists in the profession very often results in the neglect of this important means of cure.

If cases of disease of the uterus and its appendages were generally treated by physicians who by special study and preparation had fitted themselves for the management of such patients, it would be a waste of time to write this paper; but as the vast majority of these cases are treated by physicians engaged in general practice, many of whom, in consequence of the great revolution in theory and practice in relation to depletion, are perhaps extremists, it may serve a useful purpose to present my testimony in behalf of the abstraction of blood from the cervix uteri by means of leeches in varieties of disease very frequently met with. If it be true, as I believe, that leeches in some uterine diseases are capable of bringing about good results, otherwise unattainable, there is good reason for calling attention to the subject of this article; for it is certainly true that in the West, outside of the larger cities, many physicians never used a leech for any purpose.

It is proper to say here that the conclusions at which I have arrived on this subject are mainly the result of my own experience, and that I am more concerned about practical results than theoretical considerations.

The uterine diseases in which leeches are most valuable are acute endometritis, acute metritis, chronic cervical metritis, peri-uterine cellulitis, and the functional disorders dysmenorrhea and amenorrhea. Having had most experience in the treatment of chronic cervical metritis, dysmenorrhea, and amenorrhea, I will confine my remarks to these three affections.

Chronic cervical metritis is by no means a rare affection, and consists, as is well known, in inflammation of the parenchyma of the cervix uteri, whether occurring alone or as a complication of cervical endometritis. The disease is also known as engorgement, hypertrophy, and inflammatory hypertrophy of the cervix.

Chronic cervical metritis reveals itself by unmistakable physical signs. The uterus is low in the pelvis; the cervix large, swollen, and painful; the os sufficiently open to admit the finger: these are the prominent ones. For my present purpose a detailed description of the symptoms is unnecessary, as is also any reference to the pathology of the disease.

In the treatment of the disease much may be done by rest, general regimen, emollient, sedative, and alterative applications, and counter-irritation. But the remedy most important for cure, and the one most neglected, is the abstraction of blood from the cervix. The abstraction of blood may be accomplished by leeching, scarification, or cupping. Of these three methods, according to my experience, the first is much to be preferred, for by it the right quantity of blood can be more certainly abstracted than by either of the others; it has the disadvantage, however, of requiring more time for its execution.

If scarification be practiced according to Dr. Byrne's method, which consists in passing the long delicate blade of a Sims or Emmet knife up to the os internum, and cutting through the mucous membrane, with its blood-vessels and the superficial layer of muscular tissue, as it is withdrawn through the os externum a sufficient flow may be expected. The objection to this plan is that the bleeding will sometimes prove so great as to require special management for its suppression. This difficulty is much less likely to follow the application of leeches. Cupping the cervix by Thomas's method, with superficial scarification, has proved in my hands an uncertain way of depletion; a fair quantity of blood being sometimes obtained, but generally this has not been the case. I have found the best results to follow the application of one or two imported leeches to the cervix every ten days or two weeks. After the leeches fall off, the patient should remain in a warm sitz-bath for some time to encourage the bleeding. While I believe that leeching thus practiced, together with rest, will generally bring about the most satisfactory results, the cure may sometimes be hastened by the application of tincture of iodine to the cervix every four or five days, and appropriate constitutional treatment. If cervical endometritis exists as a complication, some additional special treatment will be required.

I trust that it will be understood from the above that I do not claim that leeches will meet all the indications of treatment in chronic cervical metritis, but only that in many cases they may be made to play an important part in the treatment. The rationale of this treatment by the local abstraction of blood offers an interesting subject for inquiry, but I can not enter upon it here. I content myself with the statement of what I believe to be the facts; let others furnish their explanation.

In the congestive variety of dysmenorrhea, the application of leeches to the cervix uteri has been followed by the most favorable results. In some cases the congestive and the neuralgic forms of the disorder are blended. In such cases I have found leeches equally valuable.

The following case will serve to illustrate the prominent symptoms of the complex form just spoken of, and the good effects to be expected from the local abstraction of blood by means of leeches in properly selected cases.

Miss B., aged twenty-eight (American), presented herself for treatment. The following history of the case was furnished by the patient: "General health has always been good; for the last four years have suffered greatly at each menstrual period. The periods themselves have generally been regular as to time. The pain usually precedes the flow of blood about twenty-four hours. The pain is sharp and fixed in the pelvis, loins, external genitals, and upper part of the thighs; the suffering is so great as to make confinement in bed necessary. About the end of twenty-four hours the discharge makes its appearance in about the normal quantity, but without relief from the pains. After the discharge has continued from twelve to twenty-four hours, it diminishes in quantity, and the pain increases; headache, some fever, and much nervous excitement follow, together with a sense of heat and weight in the pelvis. This state continues from one to two days, then gradually subsides. Sometimes the discharge becomes free as at first, but oftener continues small in quantity for two or three days, and then ceases; in the interval there is no pain in the pelvis, and but rarely leucorrhea. Have had a variety of medical treatment, with but little apparent benefit."

An examination by means of the touch and the speculum, about a week before menstruation, revealed no evidence of disease of either the vagina, uterus, or ovaries. The passage of the sound demonstrated that there was no obstruction of the canal of the cervix. A careful review of the case led to the conclusion that the trouble was of mixed form, the elements being congestion and neuralgia. All treatment was postponed until the approach of the next menstrual period, the patient being directed to notify me on the approach of the symptoms that commonly preceded the establishment of the function. In due time I was called and saw the patient after the pain had continued for twelve hours. The cervix was enlarged, dark in color, and evidently highly congested. Two leeches were applied to the cervix; after they fell off, a warm sitz-bath was ordered to encourage the bleeding, which was free. The pain lessened in severity before the patient left the bath, and did not increase afterward. The menstrual flow began during the bleeding from the leech bites, or immediately followed it, there being no period intervening between them; the flow continued for the usual time, and in greater quantity than ordinary; the feverishness and headache did not again appear. The patient was not placed on any treatment, but advised to have the leeching repeated on the approach of the next period; she readily gave her consent to this, stating that she had suffered much less during the period just passed than she had done at a similar time in the past four years. At the end of a month the leeching was repeated; during this period she was not confined to bed at any time. For three months longer one leech was applied to the cervix at the approach of each menstrual period, when the treatment was discontinued, menstruation having taken place twice without any pain worthy of notice. The last leeches were applied fifteen months since. Miss B. is still unmarried; I saw her a few days since, when she informed me that since the last treatment she has had no return of her former trouble, and has had indeed scarcely a pain during menstruation.

I think the above case teaches, as clearly as any one case can, the value of leeches in the congestive and neuralgic variety of dysmenorrhea. In this case no other treatment was instituted; therefore to the leeching alone is the cure to be attributed. To me it is immaterial on what theory the successful result is explained; a single established fact is worth many theories.

Amenorrhea, like dysmenorrhea, is not in itself a disease, but a symptom of some local or general disorder; therefore our efforts at cure will likely be unsuccessful if directed solely to the reëstablishment of the absent function. The cause should be diligently sought for, and removed if possible.

One of the causes of amenorrhea—perhaps not a very frequent one—is non-ovulation. The following case probably furnishes an example; but whether or not this was the cause of the disorder, the duration of the case and the happy results following the application of leeches seem to make it worthy of reporting.

Mrs. E. (American), aged thirty, gave the following history of her case: "Have been married nine years; general health has always been good. About a year after marriage became pregnant, but in consequence of a fall abortion occurred at the end of the fifth month of pregnancy; have not been pregnant since. Menstruation did not take place until about two years after the abortion, although before pregnancy the function had been performed regularly. The flow was slight at this time, and did not reäppear for six months; it has not taken place since. At intervals of two or three months have some pain in the back and pelvis, after which there is an increase of the leucorrheal discharge that has been nearly always present since my abortion."

The patient presented the appearance of good health, weighing one hundred and thirty pounds. She was very anxious to have a child, and quite willing to undergo any treatment that promised to relieve her condition. The leucorrhea was found to depend upon well-marked endometritis. The inflammatory disease of the uterus was cured in about three months by the use of sponge-tents, tincture of iodine, and carbolic acid; still menstruation did not appear. In this state the patient remained four months; at the expiration of this period, I determined to apply leeches to the cervix uteri, at the periods when an attempt at menstruation seemed to be made. Two leeches were appplied every four or five weeks for six months. Something like normal menstruation followed their third application; their fourth application was still more successful, while the fifth and sixth seemed to be followed by a complete reëstablishment of the menstrual function. The leeching was discontinued, yet menstruation occurred regularly for three months, and then ceased as the result of pregnancy, which at the present writing has advanced to the seventh month.

In this case the first step gained was the cure of the endometritis, yet the normal function was not fully established until in some way affected by the application of the leeches. Other cases might be presented, in which like good results followed the treatment pursued in the above cases, but it is not necessary to describe them; my object being simply to direct attention to a plan of treatment that I believe to be too often entirely neglected in the management of uterine diseases. I freely admit that much discrimination is necessary in the selection of cases for treatment by the local abstraction of blood by leeches; but every potent remedy must be used with intelligence, in order to effect good and not evil.

RICHMOND, IND., SEPTEMBER.

A CASE OF IMPERFORATE ANUS.

BY J. M. TAYLOR, M.D.

In the American Journal of Obstetrics for May, 1870, J. H. Pooley, M.D., of Yonkers, N. Y., reports three cases of imperforate anus; in one of which he felicitates himself upon the successful result of an operation for artificial anus, performed in the left inguinal region, after a failure to establish an opening in the natural situation. The operation had been done about six months, and the child was reported doing well. The reporter arraigns Gross, Fergusson, and other eminent surgeons who discourage the operation, as advocating a practice which he styles "a most astounding piece of ethics, and an entire misunderstanding of professional duty." He further says: "Authority can never be suffered to decide such a question as this; nor could any array of names, however great, tempt me to take upon myself to decide for an unconscious infant that its life was not worth saving, or persuade me to leave it to a certain and painful death, while any means of saving it remained untried. I must plainly say that I think such sentiments are opposed alike to right reason and good surgery. These ideas are not entertained by recent writers on the subject of children's surgery," etc. While it is clearly the duty of the practitioner to decide each particular case according to his own judgment and conscience, I am among those who agree with Dr. Gross when he says that the establishment of an artificial anus in the newly born "is in all respects so undesirable as hardly to be thought of, for life in such a condition would certainly not be worth having." Without entering into the question of moral responsibility in such cases, I will say for myself, as a father, that I would infinitely rather bury my child than have it living as Dr. Pooley's case. Yet if the parents in any such case should desire that the operation for artificial anus be performed, it would, I believe, be the duty of the surgeon to undertake it. With these remarks I report the following case.

In May, 1870, Mrs. ——, primipara, was delivered at full term, by my friend Dr. M'Dougal, of an apparently well-developed male child. A few hours after birth the child was discovered to have no anal orifice, when I was requested to see it. There was not the slightest mark to denote the presence of the rectum. I waited to allow the rectum, if not altogether absent, time to fill and furnish the sensation of bulging, whereby I would the better be enabled to reach the natural passage. At the end of twenty-four hours, there being no change in the appearance of the parts, I proceeded to operate by the usual incisions made on the spot where the anus ought to be, and by careful dissections penetrated at least two inches in depth through the tissues. I found no trace whatever of the rectum. The "uncertainty that the rectum existed at all, or that its termination was accessible from the site of the anus," with the knowledge of the liability of wounding some of the many branches of the internal iliac artery, and that "the peritoneum descends low down in these malformations,"* and therefore might be easily injured by the knife, led me to desist at this point from all further efforts to open communication with the bowel in this direction. Colotomy was my only other recourse; and this, with the full concurrence of Drs. M'Dougal and Gordon, and also the father of the infant, who was an exceedingly intelligent man, I decided not to attempt. The little sufferer was abandoned to its fate. It lived about a week.

The post-mortem revealed the fact that the rectum terminated in a cul-de-sac, which was enormously distended by gas and meconium, and occupied almost the entire pelvis. The incisions had extended absolutely to, but had not penetrated, the bowel. I regret that I had not carried them a few lines further; for a few more strokes with the knife would have opened the gut and afforded the patient the best, though a slender, chance of life.

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* Holmes.

In the case operated on by Dr. Pooley, that gentleman, following the suggestion of Benjamin Bell, made eighty odd years ago, used his forefinger as a guide, and made his incisions the full length of the finger before finding the bowel. In my little patient, my finger was either too large or the antero-posterior diameter of the pelvis was abnormally small, and the tuberosities of the ischium too near together, to admit of its being used in this most desirable manner.

CORINTH, MISS.

UTERINE DISEASES.

BY A. P. MERRILL, M. D.

Since practical medicine has been recognized as a distinct profession, no one branch of it has occupied more attention than has the treatment of uterine diseases during the last twenty-five years. In private practice, in hospitals, in medical colleges, and in office instruction, it has been and still is the prominent consideration. The rage for innovation has enlisted mechanical enterprise extensively in the construction of new instruments, and men ambitious of fame and fortune have found the invention of such instruments a successful means of advertising themselves to the public. The topical treatment of these diseases especially has become the primary object of study, and medical students seek to qualify themselves for its application even before they have learned the anatomy of the organs disordered. No woman now suffers a disturbance of the menstrual function without being deemed a fit subject for manipulations which a few years ago would have been revolting to the sensibilities of any respectable female.

Various and startling are the innovations made of late years in this branch of medical practice; and a degree of enthusiasm has prevailed in regard to them almost precluding inquiry as to results. But, we may well ask, are women more sound and healthy now than they were fifty years ago? Do the asylums for the insane present evidences that the female mind has been in any degree relieved of those peculiar excitements which cause insanity? Are those who are most subject to the new treatment more prolific than others? These questions must be answered in the negative; and the conclusion is inevitable that the innovations made in treatment are not attended by benefits which afford compensation for the demoralizing influences resulting from them. It may be curious to conjecture what would be the consequence could certain other great organs of the body, such as the liver and kidneys, be brought with equal facility under inspection and topical treatment. How would not these organs be punished for their faulty secretions and congestions, and especially for their production of calculi!

Denied all access to these organs with our curiously contrived surgical appliances, we are fortunately compelled to adhere to the use of internal remedies, and to study the operation of those which exercise a specific influence over the organ diseased. While we were thus mainly restricted in the treatment of uterine diseases by the precepts and examples of leading physicians, we met, I am sure, with better success, and the natural functions of the genital organs were less disturbed and perverted by the rudeness of digital and specular examination. Vicious knowledge and practice were then less common, and the natural restraints of modesty more approved. Women were in general more content with the operations and requirements of nature, and proportionally less liable to provoke uterine disorder by indiscretion.

So gentle are the phenomena of the uterine functions in health, that women are scarcely aware, from any sensations they experience, of the existence of this important organ, but they are exceedingly sensitive to pathologic changes. When disease occurs, diagnosis is not more difficult without tangible or ocular inspection than in cases of other organs not subject to such inspection or examination ; and it may well be doubted whether the use of such means does not in many cases lead to sad mistakes. Little information in regard to the condition of the body of the uterus and its lateral appendages can be obtained by a mere examination of the os and the vagina, either with or without the speculum, and it is very often true that more reliable information can be obtained from the communications of the woman herself. She is not an unapt judge of the character of the disease from the effects of which she suffers, and the physician experienced in such matters can not be slow to comprehend her meaning when she describes it in her own language.

Physiologic hyperæmia and hypertrophy of the uterus—conditions of monthly occurrence, and in cases of pregnancy of extraordinary development—pass, under certain morbid influences, into the corresponding pathologic states, and give rise to displacements ; then come as consequences of such disorder the morbid secretions, so prolific of discomfort, excessive or deficient menstruation, hemorrhages, thickening of the mucous tissues, and closure, either partial or complete, of the cervical channel. Ocular inspection shows more or less inflammation of the os and relaxation of the vaginal walls, accompanied by catarrhal secretions, as in the excitements of mucous membranes in other cavities, the closest analogy being with those of the nasal passages and throat. These are natural consequences of this primary pathologic condition of the uterus and its appendages, the treatment of which was formerly almost exclusively constitutional and not topical. Now all is changed, and the physician who does not in such cases resort to the use of the speculum, pessary, cauterization, injection, and occasionally the knife, scissors, and ecraseur, is believed to be behind the times, and deficient in knowledge and skill. Women have been so successfully educated in regard to the modern system that few of them expect any other than topical treatment, to which they cheerfully submit, and to which, more strangely, mothers submit their unmarried daughters. It is the fashion of the times, and the demoralizations resulting are indisputable. From my own observations, extending over a period exceeding half a century, this class of diseases is less successfully treated now than formerly, and I am meeting with cases daily which find relief by the substitution of constitutional for local treatment. Exception must be made in regard to fistulous ulcers, but the ablation of certain portions of the os uteri, incisions of the cervix, and intra-uterine medications can hardly be justified by any successes reported.

All observation, I think, shows that diseases of the uterus are not more, or more justly to be considered, local in their character than diseases of the liver, and certainly that they are not less amenable to general or constitutional treatment. The diseases of both organs are often inaugurated and intensified by nervous irritations, and symptomatic derangements not easily understood, but differing widely in their character, and admitting of easy diagnosis. This being done, the first thing to be considered in determining the indications of cure, in both cases, is not what applications shall be made to the organs themselves, but what shall be done for the restoration of the system as a whole to its normal condition. Without this the healthy functions of important organs can not be reïnstated. That mysterious movement, periodicity, is often one of the difficulties to be overcome, and in uterine disease nearly always habitual constipation, frequently alternated by diarrhea. Indeed it may be presumed that in many cases the large intestines are primarily diseased, and that the uterus becomes involved from the intimate sympathy which exists between them, just as disorder of the kidneys closely follows that of the liver. The secretions connected with the digestive organs are always more or less disordered in all these cases, while the nervous derangements are often perplexing. Hysteria especially gives rise to anomalous symptoms in organs and localities so remote from the seat of irritation as to create difficulty in diagnosis, and the remedial measures may consequently be applied to the place of symptomatic suffering rather than the true seat of such nervous disturbance. But there is no morbid condition which is so common a cause and concomitant of uterine disease as habitual constipation. By an unnatural burdening of the large intestines with fecal matter their mucous lining becomes diseased, between which and the mucous membranes of the uterine organs there exists the closest sympathy, and the former can not be long disordered without creating corresponding disease in the latter. Indeed it is found to be true, as might be expected, that in course of time all the mucous membranes of the body become more or less implicated by sympathy, and, after those of the uterine organs, none are more likely to suffer than those of the bronchial tubes. This it is which gives rise to cough, so distressing to the victims of uterine and rectal diseases, and often ending in consumption.

These abnormal conditions are to be dealt with upon sound principles of practice, and the sooner they are brought under treatment the better are the chances of cure. I concur with the great mass of the profession in the opinion that mercury is the most valuable of all our remedies in exciting defective and in relieving morbid secretions. Upon the liver it is supposed to exercise a specific influence, but its operation upon the mucous tissues is scarcely less apparent and decided. For many years I have been in the habit of prescribing it for chronic diseases in doses of half a grain, and sometimes even in less quantity daily; and continuing it for weeks, sometimes months, and in a few cases for years. Opium is not given in combination with the calomel, for the reason that it is, in general, a restrainer of secretion, and especially in the organs of digestion. The liver and kidneys, so closely associated by nervous sympathy, are particularly subject to this torpifying influence of opium, while the salivary glands are always liable to come under the specific action of mercury when given in such combination. Objection may properly be made also to the combination of other cathartic remedies with the calomel, because of their action upon the bowels in unequal periods of time. There are many advantages indeed in the administration of calomel uncombined, whether given in large or in small doses, if we wish to secure its legitimate operation upon the secretions, and prevent its passing through the bowels undigested. Much of the popular prejudice against the use of this remedy arises from want of attention to this subject.

Aloes is the proper remedy to relieve the large intestines of their abnormal burden in habitual constipation, as it is the only one which, by specific and almost exclusive action upon the colon and rectum, excites the peristole of these viscera without much disturbance of healthy functions in other portions of the intestinal canal. Objections are sometimes made to it on account of some tendency it may be supposed to have toward the production or encouragement of hemorrhoidal affections; and sometimes also for the reason that a close sympathy exists between the rectum and the uterus, giving rise to emmenagogue effects; but neither of these objections has any validity against its judicious use. Aloes of a good quality, given in aperient doses, is both preventive and remedial of hemorrhoids, by reason of its effects in restoring the healthy tone of the mucous membrane of the rectum, the loss of which from vicious habit causes this troublesome disease; and the emmenagogue effects of aloes are easily regulated by the dose. In a large majority of cases the proper rule to be observed in the administration of aloes in uterine or hemorrhoidal disease, one or both, is to so regulate the quantity to be taken daily, and always at night, as to cause only one action of the bowels the succeeding day. This affords the aperient stimulation required to supply the defect in the natural operation of the fecal accumulations, and it is in most cases all that is required in the way of catharsis. As aloes sometimes, even in small doses, causes pain, I have generally given it in the form of the pulvis aloes et canella, which generally obviates this difficulty; and it is no small advantage that aloes possesses over other cathartic remedies that the dose may be decreased as the habit of using it continues.

Upon making choice of an antiperiodic remedy, the arsenious acid is to be preferred to quinine, because the latter exercises a specific influence over the excitable uterus, causing an increased flow of blood to the organ, and often intensifying the morbid condition with which we have to contend. Its contra-stimulant effects are also distressing to women who are already suffering from a depression of nervous energy, and little benefit can be derived from any tonic effects that quinine may be supposed to possess. The arsenious acid is, on the contrary, an efficient and agreeable nerve-tonic, and anti-hemorrhagic remedy, while its antiperiodic effects are certain and permanent in chronic disease. An important virtue of this remedy in uterine and intestinal diseases is the strong influence exerted by it over chronic congestion of the tissues, and especially over engorgements of the uterus itself. Asafetida too, a remedy so long and so favorably known, has scarcely come to be justly appreciated in the treatment of uterine derangements. It is of paramount importance in all forms of hysteria, a disease—if indeed it may be called a disease—which appears in a greater variety of forms than any other, and which is often exceedingly difficult of cure without asafetida.

But the remedy which exerts a specific action upon the uterine organs, equal to that of mercury upon the liver, is bebeerina. I have tested its power in the practice of many years, and have found that hyperæmia and morbid hypertrophy of this organ, with their concomitants, are as much under the control of this remedy as the diseases of any other organ of the body are under that of any other remedy whatever. In conjunction with proper constitutional treatment, this specific remedy gives us great power over certain uterine diseases, and enables us to dispense with many of the painful and revolting operations to which reference has been made. Displacements due to morbid hypertrophy of necessity subside with the removal of the cause producing them, and so also do the catarrhal discharges, and other morbid secretions of the uterine cavity, the cervix, and vagina, including the much talked of bugbear of uterine surgery, the inflammation and ulceration of the os. All these are under the control of this and other remedies, properly administered, and with the enforcement of a too much neglected injunction—*hands off*.

I have thus briefly and hastily presented some objections to a very commonly received theory and practice; and in doing so I expect to share the fate of those who have set themselves in opposition to other favored systems which have flourished for a while, and have then been discarded and discredited forever. Theories of disease and of practice are thus all the while gaining credit, and being superseded by others; eliciting much truth, no doubt, but at the same time verifying the French maxim, which declares that "systems in medicine are idols to which human victims are sacrificed." To attempt an enumeration of these would be to extend this article to an inconvenient length; but I may refer, for illustration, to the succession of the theories of fever, which have changed with almost every generation from the era of Hippocrates to the present. It has ever been unsafe for those who would enjoy the favor of the profession and the schools to question the truth of prevailing systems; but the want of success in the treatment of certain uterine diseases by surgical and local remedies justifies some boldness, and may even excuse the expression of an opinion, entertained by many old physicians, that uterine diseases, excepting the removal of tumors and the healing of breaches of continuity, are treated less successfully now than forty or fifty years ago, and also that diagnosis has received little assistance from the use of the speculum, while the demoralizing influences of modern innovations are great, and can not be too often deplored and condemned.

Now, as it is the acknowledged duty of physicians to devise preventives as well as remedies for disease, I may be pardoned for making the suggestion here that much of the suffering of females from disorders of their organs of generation proceeds from a want of knowledge of the healthy functions of these organs, and of the penalties suffered for every unnatural disturbance of such functions; which are more certain and serious than are incurred by an abuse of other organs of the body. The proper remedy, as in other cases of ignorance and error, is intelligence. Girls who are just approaching or arrived at womanhood should receive instruction from qualified teachers of their own sex in regard to the anatomy and physiology of these organs, together with the difference between health and disease, and the facility with which, by neglect, imprudence, and indiscretion, the former may be exchanged for the latter. I often meet with women who have been inmates of boarding-schools, and also with working women, who declare that it has been common with them and their associates to pass days, and even weeks, without a movement of the bowels; which would scarcely be the case had they been informed of the serious consequences to be expected from such imprudence, often resulting in impaired health, and sometimes in premature death.

NEW YORK, OCTOBER.

USE OF SULPHUR IN ANGINA PECTORIS.

BY EDWARD RICHARDSON, M. D.

The pathology of angina pectoris is still involved in obscurity. Before diseases of the heart were properly investigated it was thought to be dependent upon some lesion of that organ or its vessels, particularly the coronary arteries. These views have been since corrected, but the true character of the complaint is, I believe, yet unknown. We are told by Dr. Watson that Dr. Heberden was the first English writer who gave a full description of the complaint, and that he called it a "*disorder of the breast.*" It is not my intention, however, to express my views as to the pathology of angina pectoris, but simply to report a case which yielded rapidly to a remedy which has, I believe, been recommended but not much used in this most painful disease. The following is a report of the case, which was treated about a year ago.

Mr. ——, of good constitution and nervous temperament, in his sixty-third year, was taken, while assisting at a cross-cut saw in sawing a piece of timber, with a peculiar sense of stricture in the chest; with some difficulty of breathing, which was somewhat relieved by rest, but immediately returned on his moving his arms in sawing. Upon desisting from work there still continued a painful sense of stricture, especially near the junction of the left clavicle with the sternum. A night's rest did not relieve it; but on the following day it gradually grew worse, until at length (in the evening) it extended itself over the whole cardiac region, and became greatly aggravated, amounting to excessive pain, extending into the left shoulder and arm; or rather a feeling of indescribable distress, accompanied by apprehensions of speedy death. This condition was reached very gradually, and continued without abatement during the whole night, no sleep whatever being possible. The general health of the patient at the time was good; heart's action unaffected, except occasionally the intermission of a beat; appetite and general functions regular. The patient had taken a dose of pills to open the bowels the day before, and during the night applied hot fomentations and stimulating applications, but without any relief. In the morning the pain abated somewhat, and during the day assumed a dull character. Increasing again in the evening, several cups were applied, which drew well, and gave some ease; and during the second night the pain resumed its dull character, never at any time disappearing, but keeping up the feeling as if the severe paroxysm was at any moment ready to return. This feeling was increased by walking up stairs, and particularly up hill, and remained for some two or three weeks with slight remissions.

Tonics were used, as after the severe paroxysms the strength had greatly failed, and the appetite was almost wholly gone. The tongue, however, remained clean. Quinine, morphine, strychnine, and phosphoric acid were each in turn tried, but without beneficial results. The patient continued to suffer pain in spite of all remedies used. Having read or heard something of the good effects of sulphur in such cases, I concluded to give it a trial. A few doses were accordingly given, after the action of which there was a decided improvement. The feeling of distress abated, and was not so readily renewed by walking up hill. Continuing the remedy, the uneasy sensation after some days disappeared entirely, and the health appeared to be restored. After two or three weeks some symptoms of a return were removed by a resort to the sulphur, which was usually taken in doses of two drachms, at night, so as to produce an alterative and slightly laxative effect. When this is discontinued for a month or so, there returns a slight feeling of constriction at the upper part of the chest, but it gives little trouble, and the patient can walk up hill with little difficulty, and has an excellent appetite.

In this case the diaphragm and other respiratory muscles were not impeded in their action, nor was the distress aggravated by a full inspiration. There was not acute pain, nor any sudden darting or shooting of pain along the nerves, but a sense of distress impossible to describe, somewhat resembling that occasioned by enormous pressure. But this was *internal*, seeming to confine itself to the internal parietes of the chest under the sternum, inclining to the left, and always accompanied by a sense of constriction or choking about the articulation of the sternum with the clavicle. There was no unusual flatulence, nor indications of any general or extended disturbance of the nervous system. The patient, over a year before this invasion of angina, had an attack of facial neuralgia of a very severe character, continuing over two weeks, and affecting branches of the fifth pair on the right side, especially the frontal branch and its ramifications above the orbit and on the right temple. Some four weeks afterward he had a similar attack in the nervous filaments distributed to the ear, on the left side, especially about the articulation of the jaw, which continued two or three weeks, and was quite severe. After two weeks respite a similar affection appeared on the right side, much more violent, and accompanied by considerable swelling of the meatus of the ear and parts behind, with great throbbing, intense pain, and some signs of impending suppuration. The swelling and increased action of the arteries was, however, due to a species of rheumatic inflammation accompanying the neuralgia. After great suffering and the use of many remedies, relief was at last obtained by applying some leeches behind the ear. As the patient had been healthy all his life, and not subject to any complaints except those of local nerves, it seems probable that the attack of angina consisted in some morbid condition of the nerves distributed to the parts affected.

It should be stated that the patient has suffered much through life with partial amaurosis, attended with great pain in the optic nerves. May not the angina have been simply a *neuralgia* unconnected with any cardiac disease? And may not this disease in all cases be an affection of some of the nerves supplied to the respiratory organs? The pain in the case was precisely like that of neuralgia when intense, but was not of the darting or lancinating character sometimes observed in ordinary neuralgia. The character of pain is no doubt modified by the peculiar functions and distribution of the nerves.

LOUISVILLE, SEPTEMBER.

ON THE SUBNITRATE OF BISMUTH IN CHOLERA INFANTUM.

BY W. WALLING, M.D.

Having had very satisfactory success with subnitrate of bismuth in the treatment of cholera infantum, I am induced to submit the results of my experience to my professional brethren. In private practice and in the Western Dispensary of Louisville I have had an opportunity of treating thirty-three cases of this disease during the past season. In the first case in which I prescribed the bismuth vomiting was intractable, and it was this symptom which led me to make trial of the remedy. The effect was prompt. Not only was the retching arrested, but with it all other symptoms were relieved. Since then I have used the bismuth to the exclusion of all other internal remedies, except occasionally in malarial cases the sulphate of quinine. I prescribe it in doses of ten grains to a scruple, repeated every second hour, until relief is experienced. I direct it to be given in the mother's milk, recently drawn;

or, if the child is not at the breast, in any article of food it may be taking.

The shortest period in which I have arrested the disease with this remedy is seven hours, or after the administration of four doses. The longest time that I have had a patient under treatment with it was three days. The average duration of the thirty-three cases was fifteen hours.

I have enjoined, in all cases, abstinence from all articles of diet but milk, and have directed this to be given in small quantities and at regular intervals.

Of the thirty-three cases which have fallen under my care this season, not one has had an unfavorable termination. In some the symptoms were violent. In a number the hygienic circumstances surrounding the little patients were exceedingly unfavorable.

LOUISVILLE, AUGUST.

DYSENTERY.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF LOUISVILLE.

The College of Physicians and Surgeons of Louisville met September 15th, Dr. GALT (president) in the chair.

DR. L. P. YANDELL. Dysentery, as no doubt has been remarked by the members of the college, has been unusually prevalent in the city during the last two months. I have not met with so many cases of the disease in any season before since the summer of 1853. Without being epidemic, it has exhibited a decided epidemic tendency, and, as is always the case when it appears in that form, it has been malignant. In a limited practice I lost, early in August, three patients in less than a week, and three in another week about the first of September; true, three of my patients were old, and one was seen only a day before he died, but the other two were in the prime of life and had prompt attention.

The first case was that of an industrious German gardener, aged thirty-five years, who had been working hard in the sun. When called to him he had been several days ill, and was excessively prostrated by the discharges, which partook as much of the character of diarrhea as of dysentery. He was moribund the next day, presenting the appearance of a man in the collapse of cholera.

The second case occurred in an Irish teamster, forty-nine years of age, robust and temperate, who also had been much exposed to the burning July sun. He died on the 2d of August, after an illness of just one week. I visited him the day after he was attacked, and he had close attention.

A worthy Irish shopkeeper, aged seventy-six years, was the subject of the third case. He sent for me on the last day of July, having had the disease three or four days, and died on the 4th of August. The symptoms in his case were never violent, but his system speedily succumbed to the disease.

The fourth case was furnished by an Irish mechanic, of intemperate habits, aged sixty-four years. I saw him, in consultation with Dr. Kalfus, on the 2d of September, when he had been suffering nearly a fortnight with the disease. He died on the 6th.

The subject of the fifth case was an Irish woman, thirty years of age, the mother of two children, and four months advanced in pregnancy. I saw her early, and twice during the progress of her case thought that her disease was checked; but abortion took place on the twelfth day, accompanied by a good deal of hemorrhage, and death followed in a few hours. I believe she would have died, however, even if that accident had not occurred.

A patient of Dr. Given was the subject of the sixth case. She was a widow lady of sixty-four, and when I saw her was in the twelfth day of her disease. She gradually declined, and died three days afterward.

Dr. Richardson desired to know what was the course of treatment pursued in these cases. He asked the question much in the spirit of the countryman lost in the woods, who called upon the devil to direct him out, meaning when he heard from him to take the opposite direction. He treated dysentery with less confidence in remedies than any disease he was called upon to meet. He was skeptical about many remedies reported by some as almost specifics. He had tried ipecacuanha with much less beneficial results than claimed for it, though in many cases it appeared to act well. He was most favorably impressed with saline cathartics, followed by opiates, in uncomplicated cases of the disease. He thought opiates by enema—laudanum and starch-water—the best mode of administration. He thought well of some of the acids, especially hydrochloric, and particularly where typhoid symptoms were present. Mercury he objected to, and believed it often did irreparable mischief.

Dr. Yandell. I pursued various courses. I tried opium, ipecacuanha, the salines, turpentine, calomel, and quinine in the several cases. Opium I gave in all. In two or three there were apparent remissions in the disease, and quinine seemed to be indicated. Turpentine was prescribed late in several cases, when symptoms of ulceration had been set up. Sulphate of magnesia and the effervescing draught were given with apparent advantage to two of the patients. I thought one was benefited for a time by the ipecac; but I do not believe that this article had a fair trial in any of the cases. Calomel was given in small doses to two patients. Stimulants were given toward the close of all the cases. Creosote was administered in some when the discharges were copious and showed signs of fermentation.

Dr. Wible. I am desirous of eliciting the statement of members in regard to the dysentery prevalent at this time in the city, and the plan of procedure in its treatment. I have seen a number of cases of disease of the mucous membrane of the bowels accompanied by dysenteric symptoms similar to those described by Dr. Yandell. The cases of dysentery now prevailing appear to be attended with more diarrhea than is ordinarily met in the disease. In treatment I employ opiates at first, to control pain and spasmodic action of the bowels, and afterward castor-oil, so as thoroughly to act as a purgative. After the action of the oil, then again I give opium enough to completely quiet the bowels. Beyond these remedies I give nothing except a sulphuric acid drink, composed of thirty drops of aromatic sulphuric acid, half an ounce of syrup, and half a glass of water. The choleraic tendency of the disease suggested to me the use of the acid, and so far it has appeared to complete the treatment satisfactorily. In the cases treated recently I have given quinine, as there seemed to be a malarious feature in them. In disease of the mucous coat of the intestines, quinine and other remedies fail to produce their usual effects, because they are not absorbed into the circulation. In such the hypodermic method is of precious value; four or five grains of neutral sulphate of quinine injected beneath the skin will be sufficient to arrest a paroxysm, and are equal, I believe, to twenty-five grains administered by the mouth. Opiates may be administered in this way when their effects are not duly produced by the usual method.

It has been my lot to witness several epidemics of dysentery. The first one encountered was in June, 1844; then tenesmus and mucous bloody stools constituted the leading features. Following the advice of Eberle, I then gave small doses of calomel, ipecac, and opium, with cathartics, and the result was that I had very protracted cases; so I abandoned all but opium and saline purgatives, and found the treatment successful. If the case was at all protracted, reliance was no longer had upon the opium and saline remedies, but upon laudanum enemata, vegetable astringents, and proper nutriment. In 1851, in another epidemic, I resorted to the same treatment with equal success. Sometimes I have used Hope's mixture. In 1853 I encountered the disease in a worse form and nearly all my cases perished. The inflammation was most active, and often resulted in gangrene, I think, in four or five days from the onset. These fatal cases were limited to a few neighborhoods. Another physician of Louisville at the same time met the disease in a similar form, with similar results. The medical press of the day noticed the outburst of the disease in various sections of the country, particularly in Ohio and in southern Kentucky. Very large doses of opium in the beginning seemed to answer the best purpose. One physician of my acquaintance gave repeated doses of five grains of sulphate of morphine, as he assured me, to allay pain, and thus relieve the disease. This heroic practice seems almost incredible; but it must be borne in mind that in dysentery large doses of opiates are well borne.

As for ipecacuanha, on account of an idiosyncrasy, I must say I hate it, and have excluded it from my practice as much as possible. I do so on the principle that it is wrong to make a sick man sicker. Its probable beneficial action in dysentery depends upon its purgative effect; but purgation can be effected by less sickening remedies.

DR. D. W. YANDELL. In the fall of 1866 the late lamented President of this College, Dr. Powell, and I were attending a case of dysentery together. Two children had been carried off by the disease while under the care of Dr. Powell, and their father lay dangerously ill with the same complaint. We had tried the salines, opium, quinine, the acids, and astringents without avail. He was growing daily worse. His life was an important one, and we were gloomy lest it should be lost. In the midst of our anxiety Reynolds's System of Medicine reached me from London. I turned at once to the article on *dysentery*. I was struck by the fact that the author recommended but one remedy for the affection, and that was ipecac.

I went myself in the night to the drug-store and prepared the medicine as directed in Reynolds, and administered it to our patient. It acted like magic. Every distressing symptom was at once relieved. The recovery was tedious because of the exhausted condition of the patient, but it was steady and complete.

I had the honor to read to this college a report of that case along with some others treated at that time. From that time until now I have rarely used in dysentery any other remedy than ipecac. I have almost uniformly trusted to it, and to it alone; and when I have done otherwise I have generally had to regret it. No doubt many cases of sporadic dysentery would recover without it, just as many cases, excited by accidental causes, get well without any drugs whatever; just as the malarial form of the disease yields usually to full doses of quinine; just as a timely dose of oil, followed by a large opiate, will frequently relieve the affection when it depends upon crude ingesta; but as a remedy, in the proper sense of that term, in severe dysentery, in that variety of the affection which under other management is so often rebellious to the last degree, I know no agent which approaches ipecac. In my hands it has proved itself all that Dr. Ewart claims for it: "It produces all the good effects that have been ascribed to blood-letting without robbing the system of one drop of blood; of mercurial and other purgatives without their irritating action; of antimonials and sudorifics without their uncertainty; and of opium without masking the disease." I fully agree with Dr. Maclean that it is "the most simple, the most successful, the most conservative, and the least distressing mode" of treating dysentery with which I am acquainted. I have used it now in upward of fifty cases with prompt and uniformly good results.

Some months ago a young Texan had a furious attack of dysentery in Galveston. He lay in bed a number of days. He got much medicine, grew better, and started North. At

New Orleans he had some premonitions of a return of his disease. When he reached here he was ill. He had tormina, tenesmus, and sixty small bloody dejections in twenty-four hours. He had fever, was flighty, and without appetite; he was consumed with thirst. He expressed himself as so averse to ipecac that for twenty-four hours I trusted to salines and opium. They gave him no comfort. I then administered the ipecac. In six hours his actions changed; his distress was gone. In twelve hours more he was convalescent.

My mode of giving ipecac in dysentery is as follows: Both food and fluids of all kinds are to be withheld for three hours. Give then a hypodermic injection containing a half grain of morphia. As soon as this is done cover the entire abdomen with a light flaxseed poultice, applied very hot, and covered liberally with mustard. Fifteen minutes after give thirty grains of ipecac, rubbed up in just enough peppermint-water to reduce it to the consistency of cream; or, should the patient prefer it, give it as a bolus. Enjoin perfect quiet. Allow a small bit of ice to be dissolved in the mouth, if the patient be clamorous for drink; otherwise interdict all fluids for three hours more. This is the distressing part of the treatment, where the thirst is great. Six hours of abstinence from drink, while in a scorching fever, is a heavy draft upon endurance, one to which few patients submit unmurmuringly. Yet it is most important, if not absolutely essential, in order to prevent vomiting. Sometimes in spite of every precaution nausea and vomiting will occur; but very often under these circumstances enough of the drug passes downward to produce the thin, copious, and brownish dejections characteristic of the action of the ipecac. I have never seen the vomiting unmanageable. It is not apt to occur for two hours after the medicine has been taken, and if the proper precautions are observed it is not likely to occur at all. I generally repeat the medicine in a dose of twenty grains, sometimes only fifteen, within eight or ten hours, and continue it, according to the urgency of the symptoms, at intervals of from twelve to eighteen hours, for two or three days after tenesmus and bloody stools have disappeared. Mild nourishment, milk in some shape being the best, should be given between times.

When the disease has existed for eight or ten days, ulceration of the bowel has, I take it, if the case be severe, almost always set in, and it would be unreasonable to hope for a speedy cure. But ipecac does its work in the same effective way in these cases that it does when administered at an earlier period. In most of the cases of dysentery that I have been called on to treat I grow doubtful of the power or fitness of a drug unless it yields results within twenty-four hours. Severe dysentery runs too swift a course, passes too suddenly to ulceration of the bowel, to be parleyed with. Whatever is done in the disease should, if possible, be done quickly. A dysentery which is arrested within six days usually gives a speedy convalescence. A dysentery which is left unsubdued for ten or twelve days recovers, if it recovers at all, at a cost of weeks of suffering.

My experience in dysentery inclines me to agree with Trousseau in what he calls "medical constitutions." In an epidemic of dysentery, which preceded and followed a slight epidemic of cholera in this city, in 1850, I thought that the acid treatment then so much in vogue in London, and the treatment by pyroligneous acid, was the best. It certainly seemed very effective—and so for a few years after. But when the "medical constitution" imparted by the cholera-poison had disappeared, the efficiency of the acid and the wood-naphtha seemed to have gone too. In 1866, when cholera had made another cycle, I found the acids again most efficient. I gave them at the Dispensary with excellent results. I have not found them particularly useful since, save in exceptional cases. I do not believe that, if that eminent practitioner Dr. Austin Flint were living in Louisville to-day, he would find opium so useful in dysentery as he found it in an epidemic of this disease which he encountered here fifteen years ago.

Dr. L. P. Yandell, Jr. I believe ipecacuanha is fully entitled to the name first given it—namely, *radix antidysenterica.* A majority of the cases of dysentery recover under almost any plan of treatment. In the army, at the beginning of the war, I found opiates, salines, quinine, and astringents all effectual; later they were not used with the same success. From my experience with ipecacuanha since I returned to Louisville, I am persuaded that it is as decidedly *the* remedy in this disease as quinine is the remedy in intermittent fever. But I am constrained to say that the experience of my hospital and dispensary pupils has not been quite so favorable to it. They have not obtained the good results from ipecacuanha that have very uniformly attended it in my hands. I have investigated the cause of their failure, and am convinced that it is due to the careless method in which the remedy has been administered. Given in the manner just described by Dr. D. W. Yandell, and as recommended by Tanner and Reynolds, I believe it will be found the most efficacious remedy ever prescribed in the severe forms of dysentery.

Dr. Ronald. I have always thought it a matter of extreme regret that such a difference of opinion should prevail among medical men in regard to the best mode of treating diseases. This must be taken as the principal reason why the community has so little confidence in the profession. In reference to dysentery, I agree with Dr. Wible as to the value of saline cathartics; but they ought to be combined, I think, with antimony. They should certainly be given before the administration of opiates, and should be continued until watery evacuations are procured. I have had no experience with ipecacuanha, but in cases attended by much thirst, with a dry, cracked tongue, hot skin, and great restlessness, I have found no remedy equal to the hydrochloric acid, camphor-water, and laudanum in decided doses. I would not change the treatment in twelve or twenty-four hours, as Dr. D. W. Yandell proposes, if no favorable impression had been made on the disease in that time. I prescribe slippery-elm largely as a demulcent, and believe that as good effects follow its use in dysentery as are obtained from it where it is applied to an inflamed surface.

Dr. Polk. I gave calomel in dysentery at the commencement of my practice, near Lexington, Ky., and then had no trouble in treating the disease; but since I removed to this city I have found it more intractable. I now use the supertartrate of potash, and opiates. I give quinine in almost every case, and seldom without advantage. After ulceration sets in I resort to local treatment, using injections of nitrate of silver. In one very obstinate case an injection of eight grains to the ounce of water was employed, and though severe pain was the immediate effect recovery promptly followed.

Dr. Wible. I am aware that ipecacuanha received a name at an early period from its supposed anti-dysenteric virtues; yet I believe it is not a specific in that disease, but gives relief only as it acts as a purgative. The repetition of the medicine, at intervals of from four to six hours, in doses of thirty grains, as mentioned by Dr. Yandell, after the manner of Reynolds, must be a severe ordeal for any patient; and should any organic changes in the mucous membrane of the bowel have taken place, consequent upon the progress of the disease, fatal results might be feared. As for himself, he would not take the remedy if afflicted with the disease; he did not believe any member of the college would take it; and therefore he did not think it right to subject a patient to its distressing effects, especially as all the good results could be obtained from repeated small doses of epsom salts. Physicians often combine opiates with the salines; that practice to me is not a rational one. Neither the good effects of the opiate nor of the saline were obtained. The best plan is, first, to completely allay pain and all spasmodic action of the bowels by opiates, and then give the saline purgative until its full effects are produced; and finally, after the action of the salines, to give again the opiates, so as to allay alvine irritation. Such a practice, according to my experience, would cut short nearly any case of the disease.

In reply to the remark quoted from Trousseau, that the character of dysentery had changed, that remedies used in former years were not available now, and that the remedies used by the fathers in medicine were again well borne and useful, I remark that the idea of change of type has been given up, after a long defense, by Sir Thomas Watson. The nature, severity, and danger of dysentery no doubt vary, and are dependent upon the structures involved in the disease, and the nature of the cause that produces it; a cause that excites inflammation in the colon and rectum would produce a severer disease than one which excited inflammation in the rectum alone. Dysentery may be excited by different causes, and the character as well as the extent of the inflammation may be different. I have been informed of one severe case of dysentery produced by a suppository of the ointment of cantharides, used by mistake for extract of belladonna. The inflammation excited by a blister-plaster is different from a blister caused by the herb vulgarly called dog-fennel; that from the latter is more difficult to heal. So the inflammation resulting from one cause of dysentery may be more severe than that caused by another.

Dr. D. T. Smith. I would mention an interesting fact which I have observed militating against the theory of the miasmatic origin of dysentery. In crossing the plains by the former means of conveyance, nearly every traveler to California was attacked with this disease. This, taken with the fact that dysentery is rather a complaint of dry seasons than of those in which the atmospherical conditions are more favorable to the development of malaria, would seem to show that it can not depend upon this cause. On the plains it was seldom fatal, though it was apt to assume a low type. Many had remedies with them to which they resorted when attacked, but a far greater number had recourse to a decoction of the root of the wild rose, which grows abundantly in the mountains. A pint or two of this astringent decoction generally effected a cure.

Dr. L. P. Yandell. Homer makes Minerva say to her protegé, Telemachus,

> "Few sons their fathers equal; most appear
> Degenerate; but we find, though rare, sometimes
> A son superior even to his sire."

From the discussion this evening it would appear that I have two sons superior to their sire in the treatment of dysentery. But I think the college will hardly deem the result of the cases I have mentioned a fair test of professional skill. Certainly, most of them, in the stage at which I first saw them, promised little to any plan of treatment. One was nearly moribund; three were aged persons, and one was intemperate as well as old; one was complicated with pregnancy, which ended in abortion; leaving only a single one which afforded a perfectly fair field. But one death in six would be a serious mortality, and I am free to admit that my success in these cases was not satisfactory to myself. I will go even further, and admit that the results of my practice in dysentery have never satisfied me. I encountered it in a most intractable form soon after I entered the profession, more than forty-five years ago, and ever since, in certain seasons, I have found it an exceedingly unmanageable disease. I rejoice that other gentlemen have been more successful in its treatment.

Reviews.

The Surgery, Surgical Pathology, and Surgical Anatomy of the Female Sexual Organs. In a series of colored plates, taken from nature. With commentaries, notes, and cases. By HENRY SAVAGE, M. D., London, F. R. C. S., etc. Second edition. Published by John Churchill & Sons, London. Received through Robert Clarke & Co., Cincinnati.

Seven years have elapsed since the first edition of this work was issued. Excellent as that was, this is undoubtedly superior in practical value. The text has been rewritten, more than doubled, and five new plates added—the number now being sixteen. Among the additions are numerous illustrative cases derived from the works of M'Clintock, Bernutz and Goupil, and others.

Space does not permit a *résumé* of this valuable book, and we must be content with giving a glimpse here and there into it—glimpses that we trust will lead many a practitioner to purchase it, for it is not expensive, and will prove of incalculable value to any one who attempts the surgery of the female pelvic organs.

The very first plate, *muscles of the female perineum*, and accompanying text set at naught the commonly received view—such as is represented in the cut on page 360 of the American Practitioner—as to the sphincter vaginæ, and as to the figure of interchange of muscular fibers between it and the sphincter ani; some muscular striæ are prolonged from the anal sphincter over the perineal body, and go to the bulbo-cavernosus muscle, *compressor bulbi*, while the constriction of the vaginal ring is produced by the pubo-coccygeus muscle.

The *perineal body* is fully described, and the important relation which it bears to the last stage of parturition pointed out. The author states that a common form of vaginismus is due to its excessively unyielding character—but which, as a rule, is readily relieved by a median perpendicular incision three fourths through it, with scarcely any loss of blood.

We commend to those who teach that division, or even stretching the sphincter ani, is essential in operating for ruptured perineum the following passage from Dr. Savage: "The success of operations for the closure of perineal lacerations is obviously not promoted by the division of the superficial anal sphincter."

After reviewing the *erectile organs and veins of the female perineum*, ten different forms of pudendal hæmatocele are mentioned. Further on, when discussing the pathology of pelvic hæmatocele, the author takes the ground that such effusions are when large always *intra*, not *sub*, peritoneal. In regard to Huguier's operation for hypertrophic elongation of the cervix, Dr. Savage says that it "requires a host of precautions, and never need be adopted when the protrusion can be reduced so far as to admit of the use of a pessary; sustained pressure upon the cervix leading, in my experience, to rapid diminution of the hyperplasm." The supposed danger of removing the ovaries in case of amputating an irreducible inverted uterus has its answer in this passage: "An inverted uterus contains the uterine half of the tube and utero-ovarian ligament, not the ovary. In the first place, the cavity of the inversion would not perhaps hold more; in the next, and chiefly, the ovary, owing to the spinal attachments of the corresponding portion of the musculo-peritoneal uterine platysma (posterior round ligament, Rouget), is the last to descend in any case; but the ovary and some intestines may occupy the upper part of the inverted bag of vagina in cases of inverted uterus with *complete* vaginal inversion."

The following observations by Dr. Savage are well worthy the serious reflection of every practitioner: "A vast proportion of maladies referred to the uterus are moral, mental, or marital—some of them scrofulous. Such are not only rebellious (their real causes being overlooked) to instrumentation, but are aggravated as well as protracted by any sort of treatment of that character."

The illustrations of the instruments and the operation for vesico-vaginal fistula are excellent; only we miss Emmet's scissors and his conical needles, neither of which any operator having faithfully tried would readily relinquish. In the text Dr. Savage says: "*One or both ureters may be involved when their truncated ends are seen pouring forth drops of urine, somewhere, at the distal margin of the fistula.*" But he does not refer to a fistulous communication between one of the ureters and the vagina, as sole and primary lesion. We believe that a case upon which we operated successfully in 1867—an account of it was published in the October number for that year of the Western Journal of Medicine—was the first recorded in which no other lesion existed but this; it was simply and solely a *uretero-vaginal* fistula, and had existed for fifteen years.

The sixteenth and last plate is *removal of tumors connected with the uterus by gastrotomy.* In the text the author refers to different methods of treating the pedicle after ovariotomy; but does not mention, while giving due prominence to Dr. Storer's "pocketing the pedicle," the very ingenious and simple method proposed and used by Dr. Emmet — "the cobbler's-stitch" with silver wires.

In conclusion, we can but reiterate our praise of this work as possessing great and permanent value, at the same time regretting that the illustrative cases are not more numerous, and are so briefly given.

Medical Opinion of Charles A. Lee, M. D., in the matter of Carlton Gates, deceased.

This pamphlet was written by the learned Doctor in answer to the question whether Carlton Gates was capable of making a will. There can be no two opinions on this subject, upon the evidence presented to Dr. Lee, and upon which his judgment was pronounced. We desire to call attention to one or two points incidentally presented by the Doctor in his argument. His research is beyond all praise. The care with which he has analyzed the evidence is worthy the following by those who find that unpleasant duty in the performance of their daily professional routine. We cheerfully agree in the exultant praise given by Dr. Lee to physicians for their great labors and discoveries in all that relates to the mind, its habits of thought, and the causes of its diseases. Their success arises from the fact that they are physicians and not metaphysicians.

In an expert we expect not only abundance of learning but accuracy of thought. The doctor's definition of insanity, like all we have ever seen, is faulty—the others frequently not large enough in their terms, his by being too large. We will quote the concluding sentence of his definition—"but in all cases perverting or destroying the will." "It can not be denied that in the presence of strangers Carlton, for the most part, manifested no special signs of insanity; but then it is to be recollected that the insane have great power of self-control." This position is frequently stated in his opinion. We quote from page 10 of the text of the argument. Whenever any one insane retains great power of self-control, his will is not and can not be destroyed, because the exertion of this power, more than any or all of the others, manifests the existence of the will, and its natural and healthful condition. Is it necessarily perverted? Do not those who are certainly sane indicate in life very frequently a perversion of the will? Then those persons are logically insane, because the Doctor states (page 9) that "where delusion then exists, however partial the mental derangement may appear, the mind is actually unsound, not to be relied on, and not to be held responsible. This position is more broadly stated on page 8. What is the logical deduction, from his definition and his argument, of his opinion that a perversion of the will indicates insanity; that insanity can not exist without a delusion, which is its true test (see p. 3, § 10); and that where delusion exists the mind is actually unsound, and radically insane? Will the Doctor hold to his logic and its honest consequences even if many of his acquaintances think him insane—it being a not uncommon occurrence for the insane to regard their sane friends in their own condition? We could quote other portions of this opinion in which Dr. Lee has crossed himself as to the perversion and destruction of the will being invariably true in all cases of insanity. His definition is too large. No one who for the shortest time has paid the slightest attention to scientific or professional studies can have failed to mark how rapidly and how thoroughly the mind can see a subject through the clear lens of distinct and comprehensive yet accurate definitions.

But it is upon the doctrine of moral insanity that the learned Doctor is evidently far out at sea. We know of no principle which, under the cover and protection of these fast times and new days, is so fraught with evil as the doctrine of moral insanity. Dr. Lee is right in saying it has become firmly established as part of the jurisprudence of our country. Too true. It empties our jails of their just inmates; it filches our gallows of their just dues; it is destroying the morals of the country. On page 12, in reference to this doctrine the author says: "It will doubtless yet become an admitted principle in jurisprudence that *sometimes* the character of the criminal act itself will furnish sufficient evidence of its having been prompted by insanity," etc.; giving, as an illustration, "where a mother murders her children," etc. And it is by such extreme illustrations in actions that this doctrine has been grafted upon the criminal law; from such exaggerated cases it has easily and naturally passed to *all cases of murder* without regard to the circumstances attendant upon them. This logic is irresistible; the conclusion can not be avoided; and the murderers all over the land go "unwhipt of justice" because of moral insanity. And what crime can in and of itself furnish so many evidences of its springing from insanity as murder? On the same page, Dr. Lee states that "a civil act, as a will depriving a parent, brother, etc., of an inheritance which would naturally, rightfully, and legally fall to them," etc.; "I say such an unnatural and causeless act will of itself prove the mental unsoundness of the party," etc. Can it be possible that this opinion was given as an advocate? Can a radical error be more strongly stated? The right to make a will is purely and entirely a legal one; it is the creature of the legislature, and existed nowhere and in no one until created by law. We are willing to believe, if we could, that Dr. Lee has been led into this position—from which evil only, and of the most frightful kind, can flow—by his ignorance of the law as to the origin of wills. But we can not escape the fact, so manifest, that is simply the inevitable deduction from his broad, radical, and erroneous doctrine of moral insanity; for surely the deprivation of one's relatives by a will of property "naturally, rightfully, and legally" falling to them is as "a civil act" on an equipoise with murder as a criminal deed.

There are spots upon the disc of the sun. Dr. Lee may occasionally teach an error in doctrine; but we have read his opinion with unfeigned pleasure, and with much profit.

F. T. F., JR.

Clinic of the Month.

FOOD FOR INFANTS.—Dr. H. Corson remarks: "Not more than one woman in five, and perhaps not more than one in ten, knows what amount of milk a child should have; nor is there one physician in very many who can tell the mother or nurse what quantity it would need in twenty-four hours. I have repeatedly asked mothers and nurses and physicians; it has been rarely that they have approximated the truth, and this because their attention had never been especially drawn to it. One would say a tea-cupful, another not quite so much, a third rather more, a fourth half a pint, and some even as high as a pint, though they rarely named so much; and then, on being asked if they put water with the milk, they invariably replied, one half water, or two thirds water and one third milk. Now scarcely any child of one month old will be satisfied with a pint daily, many will take a quart, the average is between them. I do not mean that to this quantity twice as much water should be added, thus making nearly three quarts of fluid, for no child could take so much in twenty-four hours. Suppose then that a child can only take three half-pints of fluid into its stomach in a day, and two half-pints of it are water; it will then only get eight ounces of milk, when it needs twenty-four or thirty-two ounces daily. My plan is to direct as much milk as the child can take, and as often as it wants it, but always of the temperature nearly of the mother's milk. In winter-time, or when milk is kept in a deep cave or in a spring-house, I direct that as much boiling water be added to it as will bring it to that temperature. It takes but little water, and is more convenient than heating it over the fire.

To a pint of cool milk two table-spoonfuls of boiling water should be added, the whole then sweetened. A healthy child of one month will take that much in twenty-four hours; some children will take more. Those children who have been nursed or fed by the spoon will sometimes wholly refuse to take the bottle in lieu of the breast, and the mother takes it for evidence that they do not like the cow's milk, and will therefore attempt to raise them on some of the many farinaceous articles recommended, and in this she will likely fail. A little perseverance will generally induce them to take the bottle, and when once used to it, so that they can steady it with their own hands, they will rarely take too much. I sincerely hope that our graduates will not hereafter go forth to practice believing that the proper substitute for the mother's milk is a mixture of two thirds water and one third of cow's milk; rather let them be instructed that the higher the organization of the animal the more abundant will be the nutritive constituents of the milk; and as man is at the head of the animal creation, human milk is more highly organized than that of any other animal. If then you wished to use any other milk as a substitute for the mother's, instead of diluting it with water it would seem to be more appropriate to add to it some nutritive substance. Baron Liebig's soup is probably very good, for to five ounces of good milk he adds half an ounce of wheaten flour, half an ounce of malt flour, and seven grains and a quarter of cream of tartar, dissolved in one ounce of water. This is to be put on a gentle fire, and when it begins to thicken it is removed from the fire, stirred for five minutes, heated, stirred again until it becomes quite fluid, and finally made to boil; separate the bran by a sieve, and it is fit for use. But how inconvenient for the poor to procure these ingredients and prepare them for use. When milk can not be procured farinaceous substances may be used, but milk is better. I feel that some physicians, who practice among the higher classes of society, will regard these observations as having no reference to their patients; it would be fortunate if it were so. Who has not seen the poor little emaciated child of rich parents dragged about in its little coach by the nurse, or lying on her lap on a cushion as the large carriage rolled along, to give it an airing by direction of the physician, whose precise directions had been to feed it every four hours two thirds water and one third milk. Day after day, week after week, has he not visited it and prescribed not for the starvation, but to improve its nutrition, to relieve its colics, to correct its sourness of stomach, to regulate its bowels, or, to sum up all in one common phrase, 'to build it up?' Did he succeed? No: under the impression that the child's stomach was weak, not able to take much food, the quantity was diminished, a little lime-water, mint-water, or some other 'corrective' added, and the little starving sufferer, never ceasing its low, plaintive moan, gradually passed away forever. Children who are fed on milk and water are sometimes saved by a habit which prevails among the poor of giving it while the mother is eating small bits of bread or biscuit soaked in coffee, or with molasses or sugar on it. Thus very soon the little thing becomes clamorous for it, and the mother, to keep it quiet, will soon give it a slice of bread to suck at. Children of a few months will sometimes thus be saved." (Half-yearly Compendium—Journal of Cutaneous Medicine and Diseases of the Skin.)

TREATMENT OF ONYCHIA.—M. de Moerloose, of Ghent, says: "I have always succeeded in effecting a rapid cure. A week or ten days in general, or at the furthest three or four weeks, have always been sufficient for the purpose, even under the most unfavorable circumstances. The remedy I resort to is the application, after the excision of any irregular horny excrescences, of powdered nitrate of lead. The wound should be dressed once a day only; the pain promptly subsides, the swelling soon decreases, the secretion resumes a healthy character, and in the course of five or six days the sore is often thoroughly cleansed." (*Ibid.*)

SULPHUROUS ACID IN SYPHILITIC ULCERATION OF THE THROAT.—A gentleman had been under treatment by the iodide and bichloride of mercury, gargles of chlorate of potash, etc., and opium for more than eight weeks. The sulphurous acid in the form of spray to the ulcerated surface was applied three times a day, and in three weeks the throat was quite well. (British Medical Journal.)

ACETATE OF ZINC IN LUPUS SERPIGINOSUS.—Dr. F. D. Weisse, Professor of Dermatology, New York, acting upon the statement of Neligan, uses the acetate of zinc as follows: "The ulcerations are carefully freed of scabs, their surfaces washed and dried, then a crystal of the acetate of zinc is thoroughly applied. A solution of the salt (eight grains to one ounce) is kept constantly applied on lint, with a piece of oiled silk covering it. Where the patient goes about much, an ointment containing the salt (ten grains to one ounce) may be substituted for the lotion. The application of the crystals should be repeated once a week, or every two weeks, according as the cicatrization progresses; whenever the healing is slow it is an indication to repeat the cauterization. The pain produced is very intense for the short time that it lasts; if it is too intense to be borne it may be relieved by cold water. The immediate effect observed is that the surface becomes coated with a whitish film, not so marked, however, as the pellicle of coagulated albumen produced by nitrate of silver. The solution or ointment should be continuously applied, as it favors the reparative process, and allays any undue inflammation consequent upon the escharotic. The acetate of zinc, as used above, has in my practice superseded all remedies in the local treatment of lupus serpiginosus. I believe that if it is carefully used, *it may be relied upon* *to arrest and heal the ulcers without any other treatment, either topical or internal.*" (American Journal of Syphilography and Dermatology.)

TREATMENT OF CROUP.—Dr. Fordyce Barker, of New York, whose opportunities for treating croup have been very great, says, in an unusually interesting article on this subject: "I always commence the treatment by an emetic of turpeth mineral (hydrargyri sulphas flava), in doses of from three to five grains, according to the age of the child. If it does not act in fifteen minutes I direct a second powder to be given. This, however, is rarely necessary, and I have never known a second dose fail to act in a few minutes, except in one instance, which I will mention hereafter. My reasons for preferring this to all other emetics in croup are the following: it acts much more promptly and efficiently than ipecac or alum; it is tasteless and much more easily administered than either; it does not exhaust and depress the vital power like antimony. It is equally prompt in its action with the sulphate of copper, while it is much more effective as a revulsive and sedative. I think the active emesis from the turpeth mineral accomplishes the following results much more speedily and effectively than any other agent: it depletes the mucous membrane by an abundant secretion of mucus, which is thrown up; it removes from the larynx, by the forced expiration which it causes, any albuminous or fibrinous exudation which may be there in a diffluent state, and which by remaining may become subsequently pseudo-membrane; it acts as a powerful revulsive, and thus diminishes the capillary circulation in the trachea and larynx; and thus it becomes a most effective agent in arresting the inflammatory process. I regard it as very important that this emetic should be given immediately on the appearance of the symptoms which threaten croup. In all families with young children that I attend, where the slightest tendency to catarrhal laryngitis has been manifested, I have been in the habit of directing that this medicine should be constantly kept where it can be readily found. I think that by this precaution some lives may have been saved. There is one advantage in their use which I must not omit: if the supposed attack of croup is simply one of laryngismus stridulus, or of what is called false or spasmodic croup, the powders do no harm. Of course, after such an attack, the physician will be summoned for an early morning visit, when he will discover what sort of disease he is called upon to treat. If it prove to be a case of laryngismus stridulus, I endeavor to find the source of the reflex irritation and remove the cause. But if I find evidence of catarrhal laryngitis simply, then I rely mainly on opiates, which I regard as almost the specific for acute catarrh of the respiratory apparatus, whether it occurs in infantile or in adult life. I direct full doses, proportionate to the age of the child, of Tully's powder, or the Dover's powder, or the 'Brown Mixture' of the Unites States Dispensatory. But I watch such a child closely; visiting it a second time before evening. But if, on my morning visit, I find the child with a quick pulse, hot skin, somewhat hurried breathing, and an occasional ringing cough, but with no thoracic râles, I direct that he shall be kept quiet in bed, comfortably covered, but not with too many clothes, and I prescribe the veratrum viride, in one or two-drop doses, according to the age of the child; as, for example, in the following formula:

"℞—Syr. simplicis, ℥j; Aq. puræ, ʒvj; Spts ether. nitros., ʒij; Tinct. verat. viridis, gtt. 16–30. M. S. A tea-spoonful every second hour.

"I visit the child at least as often as every eighth hour, and increase or diminish the dose according to the effect of the medicine on the pulse. I never am satisfied until I find the pulse below eighty per minute, and I then continue the veratrum in half the dose that I found necessary to bring it down to that point. My experience in the use of the veratrum viride now dates back more than twenty-five years, and I have never found it fail to reduce the pulse of irritation or of inflammation (it will not reduce the rapid pulse of exhaustion), and I have never found the slightest danger or uncertainty in its use, as I watch its effects closely. If thoracic râles, hurried and labored respiration, and other symptoms indicate that the disease is extending downward, I then substitute for the above prescription something like the following formula, of course varied according to the special indications of the case:

"℞—Mist. acaciæ, Syr. tolutani, āā ℥j; Ammoniæ carb., ʒss; Tinc. verat. viridis, gtt. 16–30. M. S. A tea-spoonful every second hour.

"It has sometimes occurred that I have found evidence of increasing laryngeal and tracheal obstruction, and I have in consequence repeated the emetic of the turpeth mineral on the second or third day; but I have never had occasion or deemed it well to repeat it a third time. Several times, a few hours after the emetic, but never during its immediate action, the child has thrown off more or less detached portions of membrane. In two instances I have had perfect casts of the trachea, with its bifurcation and some of the primary branches of the bronchi, thrown off. Both of these children recovered; but I was particularly struck with the fact that there was no immediate improvement of the respiration or apparent amelioration of symptoms directly following the throwing off of the membranous casts. I have found quinine of great service in some cases of croup in the advanced stages, when the respiration is hurried and irregular, the paroxysms of cough becoming less marked, the intermissions less distinct, and the cough husky instead of ringing. I have substituted for the last formula the following:

"℞—Mist. acaciæ, Syr. senegæ, āā ℥j; Quiniæ sulph., Ammoniæ carb., āā ʒss. M. S. To be well shaken. A tea-spoonful every fourth hour.

"When the croup is complicated with lobular pneumonia, I usually give the quinine separately, four or five grains three times a day, while the little patient takes the last of the prescription containing veratrum viride. I have either been very lucky in never having had a case of true croup, or I have had an unusual success in treating it; for during the twenty years that I have practiced in this city, I have never lost a case from croup. I regard this fortunate result as being partly due to the strenuous earnestness with which I impress on the families that I attend the importance of meeting the first symptoms of croup by a prompt and efficient treatment; partly to the fact that the remedy is always kept ready for immediate use, and two or three hours are not lost in sending for a physician, and then in sending to the druggist; partly to the incessant care with which I watch the disease during its progress; and partly to the special agents which I use as remedies." (Author's Pamphlet.)

ANTIPHLOGISTICS IN DISEASES OF CHILDREN.—Professor Jacobi, in a series of admirable clinical lectures before the New York Medical Journal Association, records his experience in the use of the various antiphlogistic agents in diseases of children. We abstract a portion of his instructive testimony.

Cold.—He uses cold water after the plan recommended by Ziemssen. He places the patient in a bath, at first tepid, and then gradually cooled down. In this way the temperature in typhoid fever may be diminished by as much as six degrees. Repeat the bath every two hours so long as the temperature rises suddenly, after each bath, to say 103° or 104° F. Eight or ten of these plunges may be necessary every day to reduce the temperature. This treatment often succeeds when everything else has failed. Dr. J. has seen many cases accompanied by this excessive heat, where every other means had been tried without effect, promptly relieved when the child was placed in a warm bath, and cold water added until the bath stood at 64° and 60°.

Scarlet Fever.—Cold applications are here often almost indispensable. In this fever the temperature will now and then rise to 106°, 107°, 108°, and this excessive heat alone prove the fatal element. He knows no remedy that will reduce such a temperature and keep the patient alive except cold water—not to speak of cold air. "Only this week I have seen such a case, where the thermometer in the rectum showed 108°. Every other means had been tried without effect. The child was placed in a warm bath, and cold water added till the bath stood at 64° and 60°. He was kept in the bath for two hours in the first twenty-four. To-day his temperature has not risen above 102°, and I consider him out of danger. I am sure that without the cold water treatment he would have been lost. Of course there are many cases of scarlet fever in which the brain symptoms are so prominent that local cold applications are used by every one. But I am now alluding to the general cold water treatment for the reduction of the general temperature of the blood. In other eruptive fevers—in variola, for example—the same treatment would be good. I would not give the impression that I think cold water a panacea or a remedy suitable for every age and condition. It may do much harm. If, for instance, there is one danger to the new-born infant greater than any other, it is that from the application of cold. I do not believe a baby should have a really cold bath until it has developed the faculty of locomotion, and the reäctive power that comes with it. Cold applications have been recommended in the cephalæmatoma of the new-born. Now it is a fact that this will get well if left to itself. We need not fear its spreading, for it will not extend beyond a suture. It is a fact too that the infant can not bear the cold application for a long period without danger of collapse; it should therefore be used with caution. So also in the erysipelas of the very young cold applications may prove dangerous. Even in hyperæmia of the brain and its meninges, where cold is so frequently employed, I think it is possible to overdo the thing. I add common salt to the water in the treatment of chronic catarrh. A large number of cases of ophthalmia in the new-born will get well under ice applications alone—a cloth taken directly from a lump of ice and placed on the eyes every half minute, and this continued not for hours, but for days. I have seen very many cases of diphtheritic ophthalmia, many where the eye was destroyed, and the only cases which did well were the ones in which ice was used. Furthermore, I would not consent to be without ice in diphtheria or croup; and for many years my local treatment of these two diseases has consisted almost exclusively in its use, both externally and internally, especially the latter, where there is much pharyngeal affection. If there is anything which I should rely upon in pneumonia, especially lobar pneumonia, where the fever is very high, it is cold-water treatment. If the temperature reaches 106°, 107°, pack the patient every hour or two. Under this cases have done well that I had almost despaired of. In most instances, however, cold local applications, changed every few minutes, will suffice. Not only in lobar pneumonia,. but also in many cases of bronchitis and catarrhal pneumonia, may cold be relied upon. In acute heart diseases, with the consecutive præcordial pain, cold applications over the region of the heart, and reaching down to that of the stomach, will almost always do good. In synovitis, and especially rheumatic synovitis, cold will do good in nearly every case, and I see no contraïndication to its use."

Digitaline.—Digitaline may be administered either in pill or in a liquid, although it does not dissolve very readily. In chronic pneumonia, chronic endocarditis, chronic inflammation of the valves of the heart, I am so sure of the effect of this drug that I give it to office-patients and continue it for weeks. I send them off with prescriptions containing perhaps one eighth of a grain per diem. To children in chronic inflammations I would give about half the dose proper for an adult ; to a child of three or four years, suffering from chronic defect of the cardiac valves, I should hardly dare to give less than one twelfth or one sixteenth of a grain daily.

Tincture of Veratrum in Pneumonia.—In the acute pneumonia of a baby I would give a drop of the tincture every hour; to a child four or five years old, perhaps two drops every hour. If the attendant is intelligent enough to count the pulse, I say bring down this pulse to one hundred and ten or one hundred, but not lower; because when the pulse falls lower the drug is apt to cause vomiting and temporary collapse. To obviate local irritation of the pharyngeal or gastric mucous membranes, I give the tincture in barley-water. This drug has no cumulative effect like that of digitalis. It will bear combination with quinine, and I think this is an important point. I often combine quinine with veratrum or digitalis where I want to get not a speedy but a continued effect upon the pulse. Especially in the pneumonia of a debilitated child, where you are in doubt about stimulating to any great extent, where you do not know whether you ought to commence with benzoic acid, camphor, etc., you will control the pulse better with quinine and veratrum than with the latter alone. I ought to add that in most cases it is advisable to combine opium or hyoscyamus with veratrum to obviate local gastric irritation.

Opium.—I believe that opium as an antiphlogistic in most of the inflammatory diseases of infancy and childhood should be avoided. While I am in the habit of using opium to a great extent in other affections of infancy and childhood, I refrain from its use in inflammatory and febrile affections, except in peritonitis, or perhaps to relieve irritation or cough momentarily in diseases of the respiratory organs.

Quinine in Inflammation.—The doses of quinine generally given are, I believe, decidedly too small—indeed I know they are. If the drug is to have an anti-febrile effect, it must be given so as to reduce the pulse, and especially the temperature; nothing which fails to do this can claim the name of febrifuge. Now I have often found that in the pneumonia of a child of two years a dose of five or six grains would have no such effect—none at all upon the temperature, and hardly any upon the pulse—while a dose of ten grains would diminish both. I have made ever so many measurements of temperature in the rectum, the only place reliable, to satisfy myself upon this point; and when one has tested it satisfactorily, he will certainly in his next case give the ten grains at first, and not waste time on the smaller doses because the books prescribe them. At the present day we have the advantage of the thermometer in determining the action of remedies, and we have certainly as good a right to fix their doses as had those less fully armed twenty or thirty years ago. I deem quinine indicated also in all secondary inflammations. In such a case I would not give less than five grains to any child of any age. With this dose I have frequently obtained a good effect in very young infants; but a child of one year will often refuse to respond to the remedy until seven or eight grains are reached; and to a child of seven or eight years I seldom give less than ten grains. The dose need not be frequently repeated. If you can see the patient in the morning and give him one good dose, you will probably find, in a few hours, that pulse and temperature have both notably fallen, or at all events not risen as expected. It is a curious fact that by quinine the temperature is first reduced, and the pulse follows; while by veratrum, digitalis, and remedies of that class the pulse is the first to be affected. Therefore as the temperature is the main element in fever, quinine would seem to be the febrifuge proper. (Medical Record, New York.)

EXTENSION IN HIP DISEASE.—Dr. Clinton Cushing, of California, concludes an account of two cases of hip disease as follows: 1. Perfect rest, as near as possible, is of the first importance in the treatment of hip disease at whatever stage. 2. The best way to secure this is by moderate extension, by means of a weight and pulley. 3. By this means the opposing diseased surfaces are kept asunder, and by the same means the patient is allowed to move about on the bed quite freely, without aggravating the disease of the joint. It is surprising to see how well children will bear confinement to a bed in the manner indicated, and how readily they accept the situation when they are free from pain. He thinks that a tonic course of treatment is demanded in every case at whatever stage; and is a firm believer in the virtues of counter-irritation in this disease, thoroughly applied. (Pacific Medical and Surgical Journal.)

BROMIDE OF POTASSIUM.—Dr. Wm. R. Whitehead, of New York, says: "There is no remedy which deservedly enjoys a higher repute than the bromide of potassium. In sthenic forms of headache, and in a number of conditions intimately associated with uterine complaints, this substance is invaluable, and an extended experience of it in these circumstances has thoroughly established my faith in its efficacy. But I am convinced that the bromide of potassium, like many other valuable remedies, is occasionally incautiously used. The indications for its administration would at first sight appear very plain should the physiological dogma concerning it invariably obtain; namely, that the bromide of potassium diminishes cerebral congestion. It is necessary to add, I think, that this remedy also produces cerebral congestion. The enormous doses which are sometimes given should excite the fear that an opposite effect from that intended might be induced, and that rapidly. The bromide of potassium should be given only in moderate doses to obtain the full therapeutic effect for the relief of cerebral congestion; that the primary action of this substance is to diminish the amount of blood circulating within the cranium, but that subsequently, and particularly in very large or toxic doses, the opposite obtains; in other words, that intracranial congestion is induced. Indeed I am inclined to believe that the *sedative* effects of the medicine are always attended with more or less cerebral congestion." (American Journal Medical Sciences.)

MANAGEMENT OF CONGENITAL PHIMOSIS.—Dr. John H. Packard, of Philadelphia, in an elaborate article on phimosis, states that "mere slitting up of the foreskin upon a grooved director, carefully inserted beneath it along the dorsum of the glans, in the median line, is the simplest plan, and perfectly effectual; and although for a long time the flaps thus left are very unsightly, they are rounded off by absorption in the course of time, and before puberty the organ becomes symmetrical. To obviate even the temporary deformity, the flaps may be cut away with scissors; or, which is a better plan, and the one I always adopt, the redundant tissue may be engaged in the cleft handle of a director, and sliced away in front of it; an additional slit being made along the dorsal portion if the glans is not wholly freed by this first cut. Severe hemorrhage is rarely met with, but if it does occur it must be controlled by fine ligatures. The sutures recommended by some authors to keep the mucous membrane and the skin accurately adapted, do not seem to me to be necessary, although they are easily applied while the child is in a state of anæsthesia, and their subsequent removal may be accomplished without any pain worth speaking of. Cold water is the best dressing to apply to the parts." *(Ibid.)*

BROMIDE OF IRON.—Dr. Charles Gillespie, of Freeport, Pa., in some remarks on the bromides, writes that "the first manufacturers of bromine and its compounds in this country were Drs. David Alter and E. Gillespie, of Freeport, Armstrong County, Pa. This was more than twenty-five years ago; and it is to them I owe my first knowledge of bromides and their use in medicine. For more than eighteen years I have used the bromide of iron and the bromide of potassium almost constantly in my practice. The bromide of iron especially is a great favorite, using it almost entirely to the exclusion of iodine in its outward application as a resolvent. Internally it has proven, in my hands, to be one of the best chalybeates in use. In chlorosis and all female irregularities there can be nothing better; and in chronic diarrhea, in urethral or vaginal discharges, it is a most valuable remedy. In many years of practice, I have never yet known it to fail in curing erysipelas, whether traumatic or idiopathic. My method of treating erysipelas is to freely paint the affected surface with the solution two or three times a day, at the same time giving the remedy internally. In diphtheria and croup it has been my chief dependence. In the anginose and malignant forms of scarlatina I have tried it effectually, but without much apparent benefit. In senile catarrh and chronic bronchitis, where there is much expectoration and cough dependent upon its exudation into the air passages, it is a first-class remedy, taken into the stomach and used occasionally by inhalation. My experience with the bromide of iron proves its great value. It is always reliable and safe, and in the form in which I use it is quite palatable and easy of assimilation. My formula for preparing the bromide is the following: Take of bromine one pound, water four pints, small iron nails three ounces and two drachms. Pour the water into a one-gallon glass bottle, and then add the bromine, and lastly the nails. Keep the bottle in a moderately warm place until reäction ceases; the union of the bromine with the iron will develop a great amount of heat, for which reason the glass ought to be well annealed. After the heat has passed off decant the solution from whatever impurities may be in the iron, and keep in well-stoppered bottles. The dose of this solution is ten drops or less, three times a day, and may be given in sweetened water or, what is better, in simple syrup. For external use, the solution should be painted on with a feather or small brush. For children, or as an application to parts of the body, where the skin is thin and sensitive, the solution should be diluted with water. Sometimes, when applied undiluted to the thighs or inner arm, it causes a great deal of pain, which, however, may be easily removed by the free application of the spirits of turpentine." *(Ibid.)*

HYDRATE OF CHLORAL.—Dr. Coghill, of Edinburgh, states that he has been much disappointed as regards the range of the utility of chloral. He had made use of it with remarkable success in all cases where opium disagreed. He had found it to act very well in all purely spasmodic complaints. In two cases of spasmodic asthma he had found it to be very beneficial. It did not do to be repeated, but you should allow the first dose to be eliminated, say a period of two or three nights. He considered that in case of continued fever, where opium was contraïndicated, it would prove beneficial. In some cases, he had found an alarming lowering of the pulse, which sometimes went down to sixty per minute. In puerperal mania he considered it would be found most useful, if not specific. In two cases of rheumatism he had employed it with good effect. He had noticed that when combined with bromide of potassium its hypnotic effects were increased. In one case a single dose, when thus combined, had sufficed to keep the patient in a hypnotic state more or less for nearly a week—so much so that he became alarmed. It seemed to increase the flow of urine materially. He was the first to point out its effects as an irritant upon the mucous membrane of the eyes. In some cases a sort of muscular neuralgia had followed its use. He had given it in the convulsive diseases of children at a very early age. For example, in a case of paralysis nutans in a child a fortnight old, he prescribed two grains with good results. In cases where the hypnotic effect was not produced it gave rise to a low form of delirium. In delirium tremens it was given with excellent results. When given as a suppository, or as a pessary, it causes violent irritation, not inflammatory, however, with profuse discharge from the bowels, but its action was modified by the combination with oxide of zinc. When employed endermically, it frequently gave rise to considerable irritation, and even sloughing of the cellular tissue. He had found that it almost invariably produced its hypnotic effect very rapidly, not above ten minutes passing before sleep was induced. It did not constipate at all; and he had found that in nearly all cases the appetite was greatly improved. (Edin. Med. Jour.)

SULPHITES IN PHLEGMONOUS ANGINA.—Dr. Tyrrell asserts, as far as the experience of twenty cases goes, that "phlegmonous angina, or take it generally, a common sore throat, with all the incipient symptoms of acute tonsillitis, can be cut short, or its duration abridged, by the sulphites, and especially the bisulphite of soda. But in order to obtain this result it is, in my opinion, necessary: first, to saturate the system as rapidly as possible with the salt; secondly, that any dose under thirty grains an hour is liable to fail in this effect; thirdly, that the bisulphite of soda is the most reliable salt for that purpose, as both the hyposulphite of soda and the bisulphite of magnesia are very prone to purge, which would defeat the object intended; fourthly, all acids, either in the shape of drinks or gargles, must be strictly prohibited, as they decompose the salt, and render it inert; lastly, the treatment should be commenced at the very earliest moment possible, and persisted in steadily, day and night, for at least forty-eight hours. If at the end of that time, the urine and perspiration giving evidence of the thorough impregnation of the system with the salt, the disease is not arrested, I believe further medication to be useless, and the disease will run its usual course, to end in abscess. Acute tonsillitis, or phlegmonous angina and the membranous angina of Trousseau—diseases as closely allied as possible—are zymotic in character, and as much constitutional diseases as scarlet fever or diphtheria. They are amenable to treatment by anti-catalytics, when properly and persistently administered. In the bisulphite of soda we have a safe and efficient agent in the treatment of such diseases, and presumptive proof that when administered early in all diseases of like zymotic character, it will prove as efficacious as in the diseases under consideration. (National Medical Journal.)

YELLOW SULPHATE OF MERCURY IN CROUP.—Mr. Crighton, of Tavistock, thinks the dose which is recommended of such an irritant—three to five grains—seems likely to be attended with risk in very young children, while its comparative slow action as an emetic—sometimes fifteen minutes—its insolubility, its acrid, metallic taste, notwithstanding the claim for it by Dr. Barker of tastelessness, render it much inferior to the sulphate of copper. Mr. Crighton gives the copper in half grain doses, repeated every fifteen minutes till vomiting is produced. (Practitioner.)

HOW SCARLET FEVER IS SPREAD.—It is spread by personal carelessness, by neglect, and by recklessness of individuals as to the public safety. Scarlet fever is propagated from person to person by culpable ignorance and criminal neglect. Cleanliness and general sanitary regulations are of use in mitigating the severity of the disease, but are no bar to its propagation. Scarlet fever is one of the most intensely and continuously contagious diseases. From the outset of the disease till the completion of the subsequent process of peeling the skin, the patient, his clothing and discharges, and the light scales which are diffused in the atmosphere from his poisonous surface-skin, are pregnant with poison. Not only should he be carefully isolated; not only should his clothing and all that comes in contact with him be carefully and thoroughly disinfected; not only should his body be anointed, as Dr. Budd has recommended, with oil to limit the aërial diffusion of the epidermal scales, but the utmost care should be exercised by the persons attending him not to become carriers of this virulent and subtile poison. To send to the laundress garments fatal as those of Dejanira, to expose in a public carriage or a crowded waiting-room the fertile sources of a deadly and volatile poison, are terrible offenses against the public safety. They are constantly and carelessly committed, and it is thus that scarlatina is spread. (Medical Gazette.)

LIQUID GLASS AS A STIFFENER FOR IMMOVABLE APPARATUS.—Prof. John Darby, of South Carolina, places the liquid silicate above either plaster, starch, glue, etc., as a material for giving solidity and immobility to dressings. The opinions of a surgeon of Dr. D.'s experience are entitled to much weight. "As found in commerce, liquid glass is a clear, light, amber-colored fluid, remarkably adhesive and tenacious, almost insoluble in cold, and dissolved in four or five parts of boiling water. The mode of application as a surgical dressing is very similar to that in making immovable apparatus with other substances in general use; but the neatness, lightness, firmness, durability, and the ease with which it is applied, render it preferable to gypsum in being lighter and not subject to renewal from cracking and breaking; in application, it is far more convenient than dextrine and glue, and in comparison with starch it is more tenacious and firm, and dries more rapidly. After properly enveloping the limb in cotton-wadding and applying a bandage, he saturates this by the aid of a painter's brush with the silicate. A second layer of bandage is adjusted over the first and treated to a liberal coating of the liquid glass; to give stability to the mobile parts, as at the seat of fracture and the joints, strips of muslin well soaked in the liquid should be placed one over the other to the thickness desired and required, or pasteboard, felt, veneering of mahogany, cedar, pine, or other wood may be added or substituted. The third and final bandage should be made to completely cover the second, with the strips of cloth, paper, wood, or other material, and then be saturated with the solution. If regarded necessary, to furnish additional strength and security from mobility, short strips dipped in the liquid substance can be applied to such parts as caused the apprehension, without enveloping the entire limb in a fourth bandage. The dressing having been made, the limb should be kept at perfect rest until drying is shown in the hardness and solidity of the apparatus by immobility; the time for this condition depends upon the thickness and quality of the materials and the quantity of the substance applied. With two or three layers of bandage, three or four hours will suffice; when five or six thicknesses, including paper, felt, or an absorbing material, are used, from eight to twelve. For the lower limb of an adult two and a half pounds of the liquid are sufficient, and half this quantity for the upper extremity. In the removal of this dressing difficulties exist, as with plaster, starch, glue, and dextrine; hot water is an adjuvant, but fear of scalding forbids use unless with greatest caution. The scissors or knife, such as used for the removal of starch-bandage, is applicable in this; and in the event of the dressing becoming loose from congestion subsiding, by cutting out a portion and boring holes, it can be laced as a boot to fit the limb, or by bringing the edges together and placing a longitudinal strip, and binding this by short strips partially or completely encircling the limb, the apparatus is made as solid, firm, and immovable as when first put on the part. In œdema of the limbs, in chronic arthritis, in club-foot, and other deformities, in firmly-fitting bandages for reduced luxations, in fractures, simple, compound, and ununited, in sprains, in truth, wherever absolute rest is required and immobility should be maintained, I know this to be a superior method of dressing." (Author's Pamphlet.)

Improved Formula for the Administration of Iodine. Dr. F. P. Mann, of Brooklyn, says: "The administration of iodine, in full doses, in the formula given by Lugol, in pill or any concentrated solution, is apt to be attended with more or less difficulty, owing to the fact that the remedy produces constriction of the fauces, and sometimes irritation of the stomach. By the use of the following formula complete iodism can be produced rapidly, and maintained for any desirable length of time without producing griping pain or any disagreeable result. I have employed it successfully where ordinary doses of iodine and iodide of potass have failed:

"℞. Iodinii, gr. xvj; Iod. potass., gr. xxxij; Aquæ puræ, ℥ij; Syrup. empyreumat., ℥vj; Ess. gaultheriæ, ʒij. M. et ft. sol. Dose, one table-spoonful three times per day, one hour before meals.

"It will be seen that each table-spoonful contains one grain of pure iodine. The advantages of this formula are, that double the quantity of iodine can be given without inconvenience; that the remedy is rendered tasteless, while the syrup is pleasant and agreeable. The solution should stand twenty-four hours before using." (New York Medical Journal.)

Notes and Queries.

Dr. S. L. Jepson, of Wheeling, W. Va., kindly sends us the following extracts from the minutes of the last meeting of the Medical Society of Wheeling:

"Dr. Hupp read a paper upon 'Rupture of the Uterus,' detailing histories of several cases, one of which was of peculiar interest. Patient aged twenty-three, third pregnancy, former labors easy, being attended by mother alone; in present labor was attended by mother for fifty-eight hours, when a physician was sent for. Pains increased in strength, and os continued to dilate until eight hours after first visit of physician, when, after some severe pains, patient gave a frightful scream, and all contractions of the uterus ceased. The fetal head receded from os uteri, a tumor appeared in right hypochondrium, the womb and contents, to use patients own expression, 'moved up,' and she experienced a sensation as of the child stretching at full length in abdominal cavity. Fainting and smothering sensations, retching, and hiccough followed. Patient lay in a listless, half-collapsed, though conscious state for over five days, when, under full stimulation, partial reäction took place, and Dr. H., called in consultation, delivered by version a hydrocephalic child of about eight pounds weight. Complete recovery of patient followed, and she is still, nine years after the occurrence, in good health. Has not since been pregnant. It is hoped Dr. H. will find time to publish complete details of this case.

"Dr. Bates desired to know if any of the members had met with bad effects from the use of the hydrate of chloral. He gave a brief account of dangerous symptoms arising in a patient of his recently after the use of this remedy, and supposed they were due to the action of the medicine, though he had not yet seen any account of poisoning having occurred from its use. The patient was a female, married, suffering from uterine disease, annoyed much by wakefulness, and in whom there was an idiosyncrasy as to opium. She took twenty grains of chloral at ten P. M. Went to sleep in fifteen minutes. Husband, awakening at three A. M., feeling that all was not right, on striking a light, found his wife in profound slumber, indeed apparently dead. After some ineffectual attempts to rouse her, he sent in haste for Dr. B., who on his arrival found the patient in the following condition: extremities cold, temperature of body reduced, face pallid, lips and fingers bluish, eyes fixed and turned upward, jaw dropped, pulse scarcely perceptible. Friction and other external stimulants, with brandy, as soon as she could swallow, brought reäction. The pulse, however, remained exceedingly weak for several hours. The doctor remained with her until two P. M., when he considered the patient out of danger. In two days she was in usual health.

"Dr. Hazlett has met with two cases in which similar symptoms occurred after the use of chloral. The first was that of an insane patient, who had enjoyed little sleep for three weeks. Took twenty grains, and in two hours became almost collapsed; deep sleep, reduction of temperature, oscillating pulse, purple hue of face and extremities, and eyes fixed as if in death. Stimulants, external and internal, brought reäction; but patient being left alone, in an hour passed again into same state. The same remedies brought relief, and he recovered. The second case was one of uterine cancer. Twenty grains of chloral were taken in three doses within six hours. Effects similar to those above mentioned, except as to sleep, which did not occur, followed in mild degree. A tea-spoonful of paregoric afterward produced rest, and the patient recovered.

"Dr. Lazell had seldom given larger doses than five grains, and always with the desired result: viz., the production of sleep. He had, however, met with unfavorable results in one patient, a female—symptoms identical with those in Dr. Bates's case having occurred, after the patient had taken twenty grains in four doses within two hours. No other members had met with unfavorable results, other than nausea and vomiting, although giving the remedy in doses from two grains to one and a half drachms.

"Dr. Cummings had relieved an old case of asthma by chloral in combination with pot. iod.

"Dr. Lazell gave complete relief, followed by sound sleep, to a patient suffering with a severe paroxysm of hay-asthma, with five grains of chloral, repeated in two hours."

QUININE IN PREGNANCY.—We insert the following from Dr. Rooker, of Castleton, Ind., merely premising that we are not quite so sure in reference to God's ordinance as the writer expresses himself in the last sentence of his communication: "Residing in the vicinity of White River and Fall Creek, I have had an excellent opportunity of studying malarial diseases. Commencing practice thirteen years ago, by my education prejudiced against the use of quinine in pregnancy, it was not until I saw a few of my patients die of congestive chills and other forms of malarial disease, and not *unusually* in others premature labor occur, I resolved to change my practice. For some time I have been giving quinine freely, where indicated, in all stages of pregnancy, and never with bad results. In brief, I think God has ordained that *no* remedy will act directly on the gravid uterus."

PROF. CROWE'S INTRODUCTORY LECTURE.—We take pleasure in presenting to our readers the excellent lecture of Prof. Crowe, delivered as introductory to the thirty-fourth annual course in the Medical Department of the University of Louisville. It is published as a supplement.—EDS. AM. PRAC.

AN

INTRODUCTORY LECTURE

DELIVERED IN THE

UNIVERSITY OF LOUISVILLE,

ON THE

EVENING OF OCTOBER 3, 1870.

By JOHN E. CROWE, M. D.
PROFESSOR OF OBSTETRICS AND MEDICAL JURISPRUDENCE.

LOUISVILLE:
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1870.

CORRESPONDENCE.

Medical Department, University of Louisville,
October 10, 1870.

Prof. John E. Crowe, M. D.:

Dear Sir—At a meeting of the Medical Class of the University, the undersigned were appointed a committee to solicit a copy of your introductory address, delivered on the evening of October 3d. It is the wish of the class to preserve the lecture as an honor to its author and the University, and as a fitting memoir of the greatest self-made man and physician of the age.

Hoping you will consent to its publication, we remain,

Very respectfully,

H. P. Davis, Ala.,
E. D. Peete, Tenn.,
A. A. Thompson, Tex.,
A. A. Clewell, N. C.,
M. Rhorer, Ky.,
H. J. McLeod, Ga.,
D. Palmer, Penn.,
W. L. Cathey, Miss.,
Cam. Robinson, Ind.,
E. M. Taylor, Ill.,
W. B. Doherty, O.,
B. F. Baker, La.,
W. G. Holland, Ark.,
T. P. Richmond, Wis.,
R. D. Darisson, W. Va.
S. P. Carpenter, Mo.,
W. W. Taylor, Ky., *Chairman.*

Louisville, Ky., October 18, 1870.

W. W. Taylor, *Chairman*, and others:

Gentlemen—Your kind letter, asking the manuscript of the "Introductory Lecture" I had the honor to deliver before the Class of the Medical Department of the University of Louisville, is received. Custom, no less than your too partial reference to the address, prompts me to place it at your disposal.

With kindest wishes, I remain, etc.

John E. Crowe.

INTRODUCTORY LECTURE

DELIVERED BY

JOHN E. CROWE, M. D.

GENTLEMEN OF THE MEDICAL CLASS:

In the name of the Honorable Board of Trüstees and the Faculty, I welcome you to the inaugural ceremonies of this the Thirty-fourth Annual Session of the Medical Department of the University of Louisville. During these thirty-four years the good people of Louisville have never failed to attest by their presence the deep interest they feel in the success of this institution, the offspring of their noble liberality, and to assure you that, though far from home and its endearing influences, warm-hearted friends kindly greet you.

This feeling on their part is traditional; for, in the early history of this city, the leading citizens inaugurated a system of public education which, carefully revised and improved upon each year, has been developed into one of the most complete and thorough courses of instruction in the Union. The tangible proof of this assertion exists in the handsome and commodious ward-school buildings and the male and female high-schools, where the youth of our city enjoy unsurpassed advantages for the acquisition of knowledge.

When Transylvania University, which had won for the fair city of Lexington the proud appellation of "the Athens of the West," began its downward career, because of its inability to furnish the necessary clinical and anatomical material to compete successfully with its more eligibly situated northern rivals, the combined efforts of the Faculty, men of acknowledged ability and learning, stimulated by the love they bore the school to whose fame and renown they had so largely contributed, could not stay the edict of inevitable dissolution. Its race of usefulness was run; its scepter was passing away; its power and glory fading. Three of the distinguished gentlemen composing the Faculty — viz., Caldwell, Cook, and Yandell, sr. — had the foresight and wisdom to realize this truth, and at once resolved to transfer their labors to Louisville, believing that the geographical position of the city, the facilities it afforded for medical instruction in its large hospital wards, and the cordial coöperation of its prominent citizens, augured a success which the inland location of Lexington forbade.

A people so proud of their school system, deeply impressed with the growing commercial importance of their city, saw when these gentlemen acquainted them with their intentions an opportunity of realizing more than their fondest hopes had dreamed of; viz., the culmination of their school system in a university where the youth of the country would be attracted, and Louisville henceforth become a great central seat of academic and medical learning.

Animated by such sentiments, and desirous of conferring such proud distinction upon the city, this square of ground was donated, an imposing edifice erected, a splendid library filled with rare and costly volumes, a museum furnished with cabinets of morbid and anatomical specimens, and a laboratory equipped with a complete chemical apparatus.

And ever since, with but few interruptions, its course has been onward and upward, save when the elements warred against the grand old building which was dear to thousands who had drunk from the fountains of learning beneath its protecting roof; where Flint, the accomplished surgeon; Drake, the philosopher; Caldwell, a Cicero in scholarship and oratory; Cobb, the graceful anatomist; Bartlett, the polished gentleman and erudite physician; Gross, the bold and dashing surgeon, whose eye flashed fire at the gleam of the catling; Silliman, the great master of the laboratory, and others equally famous, dispensed the great truths of science. And again when grim-visaged war spread desolation and mourning throughout the country.

Hitherto all was peace and prosperity; the white sails of commerce dotted our rivers and seaports; railroads were stretching their iron arms in all directions to receive the products of a bountiful soil. 'T was truly a land flowing with milk and honey. But the arch-fiend of sectionalism stalked through the country, sowing discord and dissension; the sturdy northerner rushed to arms to defend the Union; the ardent southerner to protect the land of the magnolia and mocking-bird; peaceful pursuits were abandoned; the plowshare was turned into the sword; the busy hum of industry gave place to the loud roar of artillery. Anon the angel of peace swept over the land, and the sword was returned to its scabbard, the olive-branch was proffered, and a fratricidal war closed. With the return of peace the pomp and circumstance of war disappeared; men began to busy themselves about peaceful pursuits; the sacred pulpit preached "glory to God in the highest, and peace on earth, to men good will;" the courts of justice adjudicated in a spirit of equity claims between men of opposite politics; the merchant bent his energies to the revival of a drooping commerce; the physician who had followed his neighbors through the din of battle, and fought the diseases of camp-life, wearied with the use of bandages, splints, ambulances, and hospitals, longed for the quietude of civil practice. Men of all ranks, men whose dazzling epaulets and waving plumes won the admiration or excited the envy of thousands, as well as the humble private, casting aside the habiliments of war, were glad to take up the pruning-hook of agriculture, or the marking-brush of commerce, and enjoy the fruits of honest industry beneath their own vine and fig-tree.

Of these vast armies not a few, reënforced yearly by large accessions from the other walks of life, allured by the great good accomplished in the quiet rounds of the surgeon—who, though never heralded in the glories of victory, was, while pæans of praise were sounding in the ears of victors, like the good Samaritan, pouring the oil of consolation upon the wounds of friend and foe, and sustaining their flagging spirits with the wine of comfort—demanded admission into the noble profession whose votaries sought rather the alleviation of human suffering than coveted the civic or martial honors. And you, gentlemen, have caught that same spirit, and are here to renounce the honors so dear to the statesman, whose policy shapes the destiny of nations; the laurels so cherished by the warrior, whose sword repels the invader and imposes tribute upon even imperial neighbors; the position which the princely merchant so appreciates with his untold millions, the fruit of his energy, tact, and industry; all these distinctions, objects of laudable ambition, you are willing to forego—to sacrifice pleasure, comfort, and even the rest so necessary to recuperate the frame worn by fatigue in its ministrations upon suffering humanity.

Noble profession! How pure and unselfish its objects, its aims; the servant of the ministry, the handmaid of religion. He who would become a true physician, in the elevated and comprehensive signification of the term, must surely attain to the great dignity of a Christian hero, for the path that leads to this high goal is through self-denial and an unreserved devotion to the care of the sick. Ghouls, harpies, and vampires may usurp the place of the regular physician, even as the false prophet "steals the livery of heaven to serve the devil in;" but they feast upon the credulity of the ignorant only. You never find them in the haunts of poverty, speaking words of comfort and administering to the bodily wants of those stricken with disease. The noble benevolence of our profession, knowing no nation, no creed, no condition of life, founded on the broad basis of Christian philanthropy, unfurls its banner upon which is inscribed its time-honored motto: "*Sanos sospitare, agrosque sanare,*" and marches to the fulfillment of its mission of love and mercy.

During the last few years many of the great leaders who have governed and directed the movements of this devoted army have been called to their final reward—Trousseau, Velpeau, Brodie, Syme, Mott, Warren, and Sir JAMES YOUNG

SIMPSON. Of the latter I wish more particularly to speak this evening, to present him as a model and an exemplar, whose social and professional virtues are worthy your most earnest emulation.

Born at Bathgate in 1811, of parents poor in the goods of this world, but rich in the possession of a son whose virtues and talents were destined to confer immortality upon their name, his first struggle with adversity was in endeavoring to obtain an education sufficiently liberal to fit him for one of the learned professions. The Scottish university system rendering an education accessible to the trades-people, the young student was enabled, through the aid of his brother, to enter the University of Edinburgh and become a member of the humanity class under Professor Pillans. "This venerable man," we are told by the Medical Times and Gazette, "always believed that his counsel and encouragement had greatly influenced Simpson's subsequent career, and he used to relate with great unction how, impressed with the versatility of his pupil's acquirements, he had urged him to compete for a 'Stewart Bursary,' a scholarship which carried money with it, and being tenable for three years helped the holder to continue his studies in the University. To succeed required an extended study of the classics, which might well have deterred an aspirant from a country school, but Simpson carried off the 'Bursary' and became a student of medicine."

In the year 1832 the degree of Doctor of Medicine was conferred upon him, and he became an assistant to Professor Thompson in the chair of Pathology. This position gave him the opportunity of becoming deeply versed in every phase of disease.

It is related of him that, occasionally lecturing in the place of his master, he gave indication of great originality, and of a desire to advance beyond the teachings on a subject yet in its infancy, and that the old Professor was startled out of all propriety by the new doctrines he heard had been taught in his own class-room.

A vacancy occurring in the post of medical officer at Inverkip, Simpson made application for the position, but was unsuccessful; a result that brought bitter disappointment to the young aspirant at the time, but which, fortunately for medical science, had an influence in determining his stay in Edinburgh, the theater of his future triumphs. He remained there lecturing in a medical school until the year 1840, when the death of Professor Hamilton created a vacancy in the chair of Obstetrics in the University of Edinburgh. Simpson and Dr. Evory Kennedy, a man of great reputation and merit, were the contending candidates, and so closely contested was the election that Simpson received seventeen votes and Kennedy sixteen. The opposition indulged in the most dismal and gloomy prophecies concerning the future of the University on account of his victory over his more famous rival. But no sooner was Simpson firmly seated in his chair than his genius dispelled their dark forebodings as the sun dissipates the morning mist.

As a lecturer he was impressive and instructive; powerful in argument, and abounding in aptness of illustration. So attractive were his lectures that the custom that prevailed in Edinburgh of calling the roll was dispensed with—every student was sure to be in his seat, drawn thither solely by the magic of his wonderful ability. Old practitioners, grown gray in the service, delighted to hear this great man elucidate the great truths of science.

Probably no man ever had so extensive and varied a practice, and certainly none ever devoted himself with such untiring devotion to the discharge of its responsibilities. The lecture-room, the hospital, the bedside occupied his whole attention. Patients flocked from all parts of the United Kingdom, from the Continent, to his rooms to receive the benefit of his skill, sometimes waiting days for the longed-for interview.

The amount of physical and mental labor performed by this great man is almost beyond credence, and could be endured by one of his wonderful frame only. Even when upon the couch of sickness his ever-active mind was engaged in solving some problem or inventing some surgical instrument for the relief of human suffering. Every moment of his valuable time was profitably employed. While seeking admission to his patients, or waiting in the ante-room, he was making experiments or writing essays abounding in bold and original views. He did not confine himself to medical topics, but wandered through the whole domain of science, culling choice information from the fields of politics and theology. He took great pride in becoming familiar with the minutiæ of the various pursuits of life; and, possessed as he was with a most extraordinary memory, he was able to entertain those with whom he came in contact upon the very subjects of their every-day avocations. 'T is said that, in conversing with his friends, he could indicate not only the book or pamphlet in which the subject under discussion was treated, but likewise name the very page on which the article was to be found. Endowed by nature with rare powers of mind and great versatility of talent, he brought those faculties under complete subjection by an iron will that enforced the most rigid discipline.

Sir James had, on a certain occasion, promised a paper upon a favorite medical theme to his publisher, and being unexpectedly called upon to redeem his promise, he, being occupied with his professional duties till half past ten o'clock P. M., immediately sat down and wrote till morning, when he hastily prepared himself for his daily duties, wrote during the following night, and did not allow himself any repose until after the completion of his paper on the third night. Truly, as remarked by a friend, it is no wonder he died after thirty years of such incessant labor, but rather that he lived so long a time.

Yet Sir James, who had become so famous by his writings, and whose skill had drawn so many to his consulting-rooms, delighted more in the tribute paid him by the crowds of patients than in the remuneration which was to follow. His great heart welled with sympathy for the suffering, and it afforded him more gratification to give health and happiness to the afflicted than did the tide of wealth that poured into his treasury. He was particularly courteous to the numerous medical men who visited him from all countries to consult him upon different topics, and to learn from his own lips the teachings which had rendered him so celebrated.

A well-known writer says of him: "His breakfasts and luncheons were among the most curious studies of society. Assembled unceremoniously in a moderate-sized room, with little in common save a wish to see their host, you found a company drawn together from every latitude and longitude, social and geographical. Of all this motley party there is probably hardly one who is not able, and the grades and classes of eminence run through the whole gamut of social distinctions, from duchesses, poets, and earls down to the author of the last successful book on cookery, the inventor of the oddest new patent, a Greek courtier, a Russian gentleman, a German count. At your elbow the last survivor of some terrible shipwreck is telling his story to the wife of that northern ambassador who is meeting, with the softest Scandinavian dialects, the strong maritime Danish of the clever state secretary opposite. Behind you a knot of American physicians, just arrived, are discussing in a loud voice a speech in Congress, or arguing, *sotto voce*, on the particular professional topic upon which they have come to consult the great authority. Turn for a moment from this sculptor, who is waiting to ask the opinion of the many-sided professor on the sketches he is now showing to that portrait painter, and to learn which of them shall be done in marble for the nobleman whose attention the doctor has found time to direct to the rising young artist, and you may catch something of that violent discussion between those arrivals from Australia, who have come from the land of gold in search of what gold can not buy."

And this pen-portrait of the poet is only one of the many pictures that make up the great panorama of his useful life. Prescribing for numerous patients, performing capital operations, attending to a large correspondence and numerous consultations—all these made heavy drafts upon his time and strength; yet he performed these duties faithfully, and so economized his time as to prepare a vast number of essays upon "Hospitalism;" "The stamping out of Small-pox by Isolation;" "Homeopathy, its Tenets and Tendencies;" "Acupressure;" innumerable articles for the various medical journals; and two large volumes of memoirs. He also devoted himself to antiquarian researches, and became one of the most noted antiquarians in Scotland. An address delivered by him before the "Antiquarian Society of Scotland" was "so rich in erudition and antiquarian lore as to excite the admiration of all."

As a writer Sir James was bold, original, and terse. The commonest topic touched by his pen was immediately invested with an interest altogether unsuspected, and when his gigantic intellect grappled a subject whose importance evoked its whole power, there was a lucidity of expression, an ingeniousness of reasoning, an appositeness of illustration, and an earnest fervor that excited admiration, if it did not convince the understanding. While Sir James highly enjoyed the pleasures of social intercourse, and his bearing in the sick-room was characterized by a mildness and an amiability of manner that at once won the love and confidence of his patients, yet he was not averse to enter the controversial field, and his great fund of knowledge, combined with rare logical ingenuity, rendered him a most formidable foe to encounter.

Like Jenner and Harvey, the greatest boon to suffering humanity his genius elaborated, the discovery of chloroform, involved him in numerous controversies with Robert Lee, of London; Collins, of Dublin; Bigelow, of Boston; and Meigs, of Philadelphia. A storm of violent opposition to the administration of this valuable agent greeted Sir James upon its promulgation. He, aware of Horace Wells's conception of anæsthesia and its practical adaptation, of the full credit of which he was robbed, and of the later discovery of the anæsthetic properties of ether by Morton and Jackson, though Simpson was the first to use it in his own department of practice, applied himself to further experimentation, which led to the grand and glorious discovery of the great properties of chloroform, for which thousands of his own time, and unborn millions will hold his name in grateful remembrance.

Some of the clergy denounced it as a sacreligious interference with the decrees of Divine Providence; a portion of the profession inveighed against its dangerous properties; others stood mute with awe at the acquisition of so potent an agent. These fierce attacks and unjust clamors aroused all the energy of his character and force of his mind, and he entered the arena armed with a practical experimental knowledge in advocacy of the perfect propriety of its administration, and its entire safety by the observance of ordinary prudence. The same ridicule, jeers, and bitter opposition that Jenner encountered in his immortal discovery of the protective power of vaccination were marshaled in battle array against Simpson. But Simpson had first used it upon himself, and subsequently administered it in practice in the presence of a number of medical men. Instances of its safe and successful employment were daily accumulating. The prior discovery of the properties of ether in America, its use in Boston and in Edinburgh, aided greatly in overcoming the prejudice and opposition to this more powerful and reliable ally in the assuagement of disease.

It is a remarkable and lamentable fact that, though nearly a quarter of a century has elapsed since the discovery of this great boon, which throws the victim of the surgeon's knife into the "sweet obliviousness" of pain, and robs maternity of its pangs, this noble benefactor of his race, who made this discovery, in receiving from the great city of his adoption—the field of his labors, of his contests, and of his triumphs—civic honors in recognition of his eminent professional worth, and in acknowledgment of his vast services to mankind, should be made the subject of an unkind attack because forsooth, in reply to the speech of the Lord Provost, in which a complimentary allusion was made to the discoverer of chloroform, he deemed it unnecessary to go into a detailed account of the whole history of anæsthesia, and give to America the credit of the discovery of ether—an omission of no consequence, since the fact is historical. This attack drew forth two letters which, though indited from his dying couch, are masterpieces of composition, giving a *résumé* of the whole subject of anæsthesia, freely according to our countrymen their full share of praise, calling attention to the fact that a year intervened between the dates of the discovery of the two agents, and manfully vindicating himself from the imputation of self-glorification.

To quote the language of Dr. Storer: "Looking into the grave that was open at his feet, for he felt that his sickness was to be mortal, he wrote to us these solemn words: 'There never was a more unjust or unjustifiable attack than Dr. Bigelow's. I know, from the inmost depths of my own conscience, that I never said or wrote a single word to detract from the mightiness of the discovery of anæsthesia by sulphuric ether at Boston in 1846. But surely the discovery of another anæsthetic by me a year afterward, more powerful, practical, and useful than sulphuric ether, was in itself a fact of no small moment.' During his last illness he wrote letters to all those with whom he had controversies, manifesting a deep desire to make peace with all the world. What a becoming close to so useful a life! That master mind which had won its way from the humblest walks of life to a chair in one of the most noted universities in the world, and by its own inherent strength, unaided by wealth, family connection, or the influence of powerful friends, commanded the respect and admiration of the medical world, exhibiting not only the simplicity of a child, but that higher and greater, because more difficult to attain, virtue—humility."

What a soft and mellow light it casts over his whole life! How it tones down to an earnest desire to establish doctrines that he was thoroughly convinced were true, what might otherwise be ascribed to the asperity of a nature that delighted in controversy!

Sir James was a fervent believer in Christianity, and always, notwithstanding his extensive practice, found time to attend church regularly and punctually. Six days were enough with him to give to the cares and anxieties of this life; his Divine Master claimed the seventh, and he gave it freely and cheerfully. No matter what other duties devolved upon him, he recognized the paramount claims of the Giver of every good and perfect gift; and surely no man ever endeavored more assiduously than did he to cultivate those gifts for the benefit of mankind.

Industry, it has been said, is not natural to man; honor, gain, and necessity are its prompters. In the instance of Dr. Simpson it was a duty and a joy.

But he is gone! All that is mortal of Sir James Simpson has been consigned to the grave by a world of friends; that which is immortal has flown to its Maker, and to the enjoyment of a never-ending bliss. And yet, while that lifeless form returns to its original clay, the fruit of his labors, investigations, and discoveries will be applied to the assuagement of human woe, the alleviation of human suffering, till time is no more.

THE AMERICAN PRACTITIONER.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE NON-MALARIAL ORIGIN OF FEVER.

BY S. LITTELL, M. D.

The doctrine of malaria, as a cause of disease, is so generally received as an article of medical faith, and forms so large a part of medical literature and conversation, that to deny its existence, or indeed to express any doubt on the subject, would expose the unhappy individual thus impugning it to the imputation of eccentricity, if not of folly. And yet no proof has ever been adduced of its existence; it is a mere myth invented for the occasion, and, as I once endeavored to show, all the phenomena falsely ascribed to it may be both more rationally and more satisfactorily accounted for on other principles. The abstraction of vital heat or animal electricity from a system debilitated or exhausted by any cause, and especially by heat, will give rise to intermittent and remittent fevers, or to any other disease to which predisposition may exist, without involving the necessity of invoking for that purpose an agency which I do not hesitate to say is purely imaginary. That fever of almost every kind is rife in the early autumnal months is owing to the action of the cool damp air of that season—then a powerful conducting medium, which it is not when dry—on the human frame, weakened and exhausted by the frequently protracted and excessive heat of summer. This theory, as I have stated, not only satisfactorily resolves many curious matters, inexplicable on the malarial hypothesis, but leads directly to a mode of treatment, preventive and curative, which (if commonly adopted) would greatly circumscribe the prevalence of the disease. The avoidance of exposure to the early evening and morning air when it is charged with moisture from descending and ascending exhalation, and affects more or less all within its influence, some care in husbanding or in not overtasking the already diminished power of the system, and the general use for a brief period of tonics and stimulants, would greatly diminish the number of cases of fever which we are called to treat. I know that the Practitioner has little room to spare for theoretical discussion, and therefore forbear; but I would be gratified if it could afford space for a few extracts from a recent work, in which the writer, himself deeply imbued with the malarial doctrine, but with a mind open to the reception of truth, faithfully records the observations and opinions of others. He is speaking of Corsica:

> "Though Corte is in the middle of the mountains, fifteen hundred feet above the level of the sea, and nearly traversed by a brawling mountain torrent, I found that malarial fever was rife there. Dr. Tedeschi, the leading practitioner at Corte, told me that he thought the fever was constantly developed at Corte, and in Corsica generally, in summer and autumn, by a mere chill, quite independent of any malarious influence. Every year he was called to attend severe cases, brought on by chills experienced from merely sitting out in the evening under the shade of a row of plane-trees, in the center of the town or elsewhere, away from all water. I found the same opinion prevalent among the medical men both of Bastia and Ajaccio.

"The experience of the Corsican medical practitioners thus appears to corroborate the views entertained by my esteemed friend Dr. Robert Dundas, and brought before the profession in his interesting and elaborate work entitled 'Sketches of Brazil' (1852). Dr. Dundas proves to demonstration, by numerous facts drawn from his lengthened experience of intermittent fever in the Brazils and in other tropical climates, that the purest and most wholesome sea-breeze will often give rise to severe intermittent fevers, when those who are exposed to it are debilitated by previous illness, or by bodily and mental exhaustion, or are in a state of perspiration from severe exhaustion. At Bahia, the most malarious houses are not those that are exposed to winds coming from the neighboring marshes, but those that are the best situated according to English ideas—that are exposed, without protection, to a pure but moist sea-breeze.

"Again, Dr. Rannie, in an interesting work entitled 'The British Arms in North China and Japan,' says 'that soldiers residing in malarious localities and in low situations often did not appear to suffer, but when removed to the heights and freely exposed to the breeze they were struck down with fevers.' These and similar cases, occurring again and again, led Dr. Rannie to conclude that the low situations produced a debilitating effect and a predisposition to fever, which attacked the weakened men directly they were exposed to currents of air. Thus what would have been found invigorating to persons in health could not be endured by these men, owing to their weakened state.

"Most of the malarious regions in Corsica are on or near the sea-shore; and as there is in summer a very decided breeze, during the day its chilling influence may be an important cause of fever, as in the south generally. . . . In our country, a chill in summer does not produce ague, but bronchitis, pleurisy, rheumatism, or diarrhea; but then the human economy has not been previously exposed to intense tropical heat. Still our marshy, undrained districts, such as the fens of Lincolnshire, are malarious, like the marshes of Corsica; intermittent fever appearing in autumn, apparently without exposure to chills of any kind. . . . As I have already stated, on the authority of my friend Dr. Dundas and others, it is an undeniable fact that in warm climates intermittent and remittent fevers may occur where there are no marshes, as a mere result of a chill in an organization weakened by intense and protracted heat. It is possible that such chills may be the principal or sole cause of fever even in low, damp, reputed malarious regions. Such indeed is the opinion of a very enlightened French author, Dr. Armand, who was many years with the French army in Algiers, and has written a most valuable work on the climate and diseases of that country. . . . . Casabianda (in Corsica) is an agricultural colony of convicts, founded by the French government in 1864, in order to reclaim and drain some of the ponds and swamps of the oriental coasts. Unfortunately the government gave the first appointment of director to a clever, energetic officer, but a northerner, who knew nothing of Corsica or of its fever. He thought all he heard nonsense; that the fever was the result of the men working in the heat of the day and being badly fed. So he had the convicts up before daylight, and made them work at the drainage in 'the cool of the morning.' Then he had them home in the heat of the day for dinner and a siesta, and sent them out again to work in 'the cool of the evening.' The local medical men and the Corsicans around him stood aghast at a plan so contrary to all their experience; for they wait until the sun has dispersed the watery vapors, and return home before sunset. But he was not to be persuaded; reported the medical men under him for 'insubordination,' and had his own way. The result may be easily foretold. He lost during two years sixty-five per cent. of the convicts, or six hundred and sixty-five out of the one thousand each year. The government was horror-struck, and the colony would have been abandoned had not the stubborn director most fortunately himself died of the fever. A more rational man was then appointed, who allowed the medical staff free scope, and everything was reversed. The men were sent to work an hour after sunrise, and brought home an hour before sunset. In the summer they were all transferred to the mountains, and various other precautions were taken, with such good results that last year the mortality in the same conditions and locality was only three and a half per cent., or thirty-five in one thousand. These details I had from Dr. Tavera, the present medical director of the penitentiary, to whose energetic efforts much of the results is due."

I have made the preceding extracts—and more might be made from the same source and to the same effect—from "Winter and Spring on the Shores of the Mediterranean;" an excellent work by J. Henry Bennett, M.D., published during the present year. The object of the author was to determine by personal inspection the best localities for the temporary sojourn of invalids, and especially of those afflicted with pulmonary complaints, who in the early stages of disease are seeking a change of climate. Many facts of like import were set forth by the writer in a paper printed in the Transactions of the American Medical Association for 1866; and others, without number, might be readily adduced. They disprove absolutely the malarious origin of autumnal fevers; and with the overthrow of that hypothesis, which has exerted an influence so potent and exclusive over medical thought, suggest also a rational etiology for a host of complaints which, from their intermittent character and general obedience to tonic treatment, are wrongly attributed to the same cause, or are supposed to derive at least a modified character therefrom.

PHILADELPHIA, SEPTEMBER.

[After reading the interesting paper of Dr. Littell, we are almost tempted to abandon our faith in the existence of that mysterious poison which has baffled the cunning efforts at demonstration of the medical world since the days of Lancisi, now more than a century and a half ago. Yet the hypothesis of malaria to account for the production of certain forms of fever is too plausible to be readily discarded; and furthermore it has triumphantly held its ground against similar adverse opinions for more than a hundred years. For example, Fordyce, in his dissertations on fever, though in a different phraseology, seems to us to inculcate views on moisture and cold, or the abstraction of heat, as causes of fever, not essentially differing from those expressed by Dr. Littell. What causes the fevers termed malarial, or in fact any form of idiopathic fever, it would seem to be impossible to decide with the present amount of facts and argument on either side; therefore we feel that the question is still *sub judice*, and can be settled only by further investigation.—D. W. Y.]

CARBONIC ACID AND FEVER.

BY H. BEAUCHAMP, M.D.

I was agreeably surprised to see in the September number of the American Practitioner an extract from a paper by Dr. Duff Child, entitled "On the Cause of Malarial Fevers."

You will know why my attention was particularly directed to the article when I state the fact that I read a paper at a meeting of the Butler County Medical Society, fifteen years ago, entitled "An attempt to prove that Miasmata owe their potency to Carbonic Acid." Are we near the truth? Both have charged carbon or its compound (C_2N) with the zymotic or toxic power of miasma.

I was led to the investigation of the subject by observing that all the conditions necessary for the development of malaria were alike necessary for the natural production of carbonic acid; of which stand prominent heat, moisture, and vegetable and animal decomposition. Please allow me to present my table of comparisons, which may with propriety be added to that of Dr. Child:

Miasm.	**Carbonic Acid.**
Produced by vegetable and animal decomposition.	Produced by vegetable and animal decomposition.
Specific gravity heavy.	Specific gravity heavy.
Absorbable by water.	Absorbable by water.
Habitations: marshes, stagnant pools, prisons, hospitals, crowded rooms.	Habitations: marshes, stagnant pools, prisons, hospitals, crowded rooms.
Potent at night.	Eliminated at night by vegetation.
Enters the system through the respiration.	Enters the system through the respiration.
Sedative to the system.	Narcoto-sedative.
Produces torpor of the sensorial function.	Produces torpor of the sensorial function.
Darkens the blood, destroying its coagulability.	Darkens the blood, destroying its coagulability.
Causes cerebral congestion.	Causes cerebral congestion.

I do not consider it necessary to go further with my list, as this will show you that I had grounds to base my belief upon, and to afford material for my essay.

HAMILTON, O., SEPTEMBER.

[The analogy between the effects of carbonic acid and miasmata, as pointed out by Dr. Beauchamp, is striking, and worthy of notice; though the production of intermittent fever was long since attributed by Boussingault to carbon in the form of the well-known marsh gas, carbureted hydrogen. This gas, as well as carbonic acid and carbonic oxide, although commonly enumerated among the causes of disease, have not been considered as capable of giving rise to malarial fevers. Dr. Drake, in his remarks on the "malarial hypothesis," makes particular mention of these gases as not producing effects resembling those from marsh miasmata, so called. Dr. Child's idea seems to be that malaria is necessarily an azotized compound, and that intermittent fever is really *intermittent uræmic poisoning.* He regards the last stage of a paroxysm, terminating favorably, as being the successful elimination of the poison by the skin (in the perspiration) and by the kidneys (in the urea of the urine). He believes that from whatever cause cyanogen or any of its compounds may be in excess in the blood—whether from being inhaled in the form of vapor (malaria) or accumulated by reason of the embarrassed action of the skin or kidneys—a paroxysm of fever is produced, and the body is thus relieved. If the poisonous accumulation takes place again and again, paroxysms of fever follow each time; in other words, an intermittent fever is established. He urges, as a fact to sustain this view, the experiment performed by M. Brachet upon himself—namely, his causing an attack of intermittent fever by bathing at midnight, for several nights in succession, in the river Saone.—D. W. Y.]

AN ATTEMPT TO DESIGNATE AND IDENTIFY THE CAUSE OF SEVERAL DISEASES.*

BY DUFF CHILD, M. D.

There are certain diseases, now believed to be remotely or not at all related, that are probably produced by the same cause; namely, an excess in the body of the poison known as cyanogen (C_2N), either alone or combined with some base. This poison has its presence in the system either by gaining admission through the lungs during inspiration, or, being in some of its compounds and derivatives a result of the metamorphosis of tissues, it accumulates in the body through failure of the skin and kidneys to remove it with sufficient celerity. By the kidneys this poison is eliminated in the form of urea and uric acid; while by the skin, if Schönbein's test is infallible, it escapes as *cyanide of hydrogen.* The source of the poison, external to the body, is probably that portion of the surface of districts styled malarial, which are subject to be alternately covered with water, and then dried by powerful solar heat. These changes destroy the larger part of both the animal and vegetable life of such soils, and thus suitable matter is supplied for the production of cyanogen or cyanide of hydrogen.

The evidence furnished by Schönbein's test-paper, thrust into the fissures appearing in such surfaces, when drying under the heat of the sun, is that upon which this assertion is made, though the fact that the characteristic odor of cyanogen is given off by the decaying timber of localities subject to overflow is significant and corroborative. By means of masses of vapor or clouds, this poison is doubtless carried to many and distant points where no local cause of disease is found. The kindred diseases are: 1. Malarial fevers; 2. Dysentery (epidemic); 3. Neuralgia; 4. Rheumatism; 5. Gout; 6. Tetanus.

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* The abstract of a paper, by Dr. Child, on the cause of Malarial Fevers, which appeared in the September number of the American Practitioner, has attracted so much attention that we feel called upon to admit a communication by the same author, even more speculative than the first. Excellent as this communication is, we need not remark that such articles do not fall within the scope of this journal. Similar communications, unless supported by a much larger array of facts, we shall be obliged hereafter to decline to publish.—EDS. AM. PRAC.

Some of the diseases just enumerated are frequently converted the one into the other, and it is not uncommon to see two showing themselves in the same patient at the same time. They are all probably but symptoms of poisoning by the same agent, the different manifestations being due to special circumstances or to constitutional peculiarities. The difference in the symptoms of any two, supposed to be most widely separated, is not greater than between an attack of bilious fever and one of pernicious fever—diseases generally admitted to be from the same cause.

Malarial Fever.—The reasons for supposing that cyanogen or some one of its compounds causes malarial fever are: *First*, that the prodromic symptoms of intermittent fever exactly resemble the milder symptoms of poisoning by substances containing cyanogen in the form of prussic acid—as, for example, from eating the fruit of the Prunus Virginiana, inhaling vapor from an infusion of the bark of the same tree, or from swallowing small quantities of the oil of bitter almonds. *Second*, in cases where death has been deferred after fatal doses of prussic acid have been taken many of the symptoms are the same as those of a *congestive chill* or pernicious seizure. A table giving corresponding symptoms was published in the September number of the American Practitioner. An interesting illustrative case of poisoning from prussic acid vapor is given in Taylor on Poisons, as reported by Dr. Regnold, and is as follows: "He (a student) lay in a perfectly insensible state for many hours. There was slight lividity of the face;

the eyelids were closed, and the pupils widely dilated; respiration was difficult, and took place at intervals; *extremities cold;* pulse barely perceptible; muscles of arms and legs were firmly contracted, but there was no tetanic convulsion. The patient was in a state of complete coma, and could not be roused. After some hours recovery took place, but the patient suffered from *headache and other symptoms*." The writer has met with several cases in his own practice that were almost a counterpart to the above, and under circumstances which pointed to or afterward proved their origin to have been malarial. *Third*, the symptoms of chronic poisoning in workmen exposed to vapors containing hydrocyanic acid are similar to those of the chronic form of malarial poisoning, commonly called the *dumb ague*. These symptoms were enumerated in a former article,* but as they are an important part of my evidence I repeat them here. They are lassitude, dull pain in the head, darting pains over the eyes, abnormal sounds in the ears, dizziness, vertigo, pain in precordial region, difficult respiration, constriction of throat, feeling as of suffocation, and alternate wakefulness and somnolency. *Fourth*, the well-known experiment of M. Brachet—namely, the causing an intermittent fever in his own person by bathing at midnight, for several nights in succession, in the river Saone—can be explained on the supposition that mild intermittent cyanic poisoning followed the checking of the action of the skin by the application of the cold water at regular intervals. *Fifth*, Mr. H. Aschner, a dyer of this city, has assured me that workmen exposed to the vapor given off by dyes containing cyanide of potassium and other kindred preparations show the following symptoms: first, "the face, particularly under the eyes, turns yellow—could not say whether this discoloration extended to other parts" of the body; second, "there is a feeling of weakness at the knees—there is general weakness of the body;" third, the sufferer has, as Mr. A. describes it, "a curious kind of fever." Here, it seems to me, is positive proof that cyanogen or prussic acid vapor produces a fever which closely resembles bilious fever. Living in an atmosphere containing but a small quantity of the vapor of prussic acid, *by night as well as by day*, is believed by the writer to be the cause of the ordinary form of intermittent fever.

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* See September number of this journal.

Dysentery.—Dysentery is probably related to malarial fever for the following reasons: first, it is an endemic disease of warm climates and malarial localities; second, malarial fever and dysentery are commonly seen together and in the same patient, the one frequently terminating in the other; third, the same treatment will palliate and relieve in both diseases. The affection of the bowel which characterizes dysentery is probably due to the vicarious performance of the function of the skin by the large intestine, the cyanogen element of the skin-secretion producing irritation and consequent inflammation of the mucous membrane of the bowel.

Rheumatism and Neuralgia.—Muscular rheumatism and neuralgia are generally believed by the profession to be akin, and in my opinion are of malarial origin. Persons who have suffered much from malarial fevers are apt to be afflicted with either as a sequel. Furthermore, these diseases, like intermittent fever, yield, as a rule, most readily to antiperiodics. The popular opinion that acute articular rheumatism is caused by exposure to a cold and damp atmosphere is probably correct — such exposure checking the excretive action of the skin, thus causing an accumulation of the cyanogen element in the system.

Gout.—As has been demonstrated by Dr. Garrod, gout is caused by the presence, in excessive quantities, in the circulation of a substance close akin to the cyanogen compounds; viz., urate of soda.

Tetanus.—The grounds for believing that tetanus has an origin similar to malarial diseases are: *First*, that many persons suffering from intermittent fever have well-marked seizures of tetanus during each paroxysm. *Second,* the clinical history of the disease seems to prove it to be one form of remitting fever; the spasms are remittent, and the exacerbations generally occur at regular intervals; the temperature is elevated, and the pulse is commonly quickened during exacerbation; the skin is hot continually, and frequently bathed in perspiration. *Third,* it is most commonly met with in hot and malarious countries. *Fourth,* sulphate of quinia is a most reliable medicine in its treatment. Furthermore, a prominent symptom of acute poisoning by prussic acid is trismus. In accordance with the theory herein advocated, the phenomena of this disease are caused by the retention or accumulation in the body of some compound or derivative of cyanogen acting on a peculiar nervous organization. An attack of idiopathic tetanus is probably an attack of so-called malarial fever, manifesting itself in that peculiar form. The occurrence of traumatic tetanus would be explained by supposing that an injury, however trivial, owing to the peculiar condition of the system, had caused sufficient disturbance to check the proper elimination of the poisonous excreta. If the patient be exposed to a damp atmosphere, alternately hot and cool, the liability to this form of disease is necessarily increased.

LOUISVILLE, OCTOBER.

A MUSKET-BALL IN THE FRONTAL SINUS—REMOVAL AFTER SIX YEARS—RECOVERY.

BY PRESTON PETER, M. D.

Abraham F. Debaun, belonging to the First Kentucky Cavalry (Federal), was wounded by a musket-ball at the battle of Fair Garden, East Tennessee, January 28, 1864. The bullet entered the forehead at the inner angle of the right superciliary ridge, passed backward and outward, and apparently made its exit immediately behind the right eye. At least when first seen by me at Nashville, Tennessee, about ten days after the wound was received, there existed an opening immediately behind the right eye, as above indicated, through which it was supposed the ball had passed out. Evidently, I think, a portion of the missile had made its exit there. The wounds of entrance and exit were then cicatrizing, and the patient suffered little or no inconvenience. He remained at Nashville but a few days, and was sent back to Kentucky on furlough. I lost sight of him till June, 1865, when he came to my office at Springfield, Kentucky, to be examined for a pension. I then learned from him that in a month or six weeks after he was wounded he began to suffer from headache, neuralgia, and heaviness about the head, with occasional dimness of vision, and an almost constant discharge from the wound of a dirty sanious pus. He had been discharged from the service in the latter part of the year 1864, on surgeon's certificate of disability, and returned to his home, where he attempted to farm, but with poor success, being most of the time confined to the house, and a good portion of the time to his bed.

He came to Louisville in June, 1870, for advice, and upon consultation with Drs. D. Cummins and J. A. Brady an operation was decided upon. The patient's condition at this time and for several months before was about as follows: headache; pain of a dull, heavy character in the right side of the head; nervous and emaciated; the wound discharging freely a dark sanious pus; occasionally, when the wound would become temporarily closed or fail to discharge freely, he would become sleepy, approaching an apoplectic coma, and the sight of the right eye would be very much impaired till the discharge was again well established.

The operation proposed was for the purpose of removing, as we supposed, depressed and necrosed bone. It was performed by Dr. Cummins, Dr. Brady and myself assisting, at St. Joseph's Infirmary, on June 8, 1870. A crucial incision was made directly over the point of entrance at the internal angle of the right superciliary ridge, a fungous and cartilaginous growth was now removed, and numerous small vessels ligated. An opening through the external table of the frontal bone was then discovered, and upon trimming off the ragged edge with bone-pliers evidences of lead were found. An elevator was introduced, and two pieces of lead, each about one third the size of an ounce ball, besides numerous small particles, and all lying in the right frontal sinus, were removed. When this was done the internal table was found to be slightly depressed, with an opening in the depression communicating with the dura-mater, opposite the site of the fragments of lead. As he had never suffered from epilepsy, and the depression of the internal table was slight, it was not deemed advisable to undertake the removal of any more bone.

The wound was closed with sutures, and isinglass plaster and water dressings applied. The patient rallied promptly, and almost as soon as he became conscious expressed himself greatly relieved—feeling better than he had for six years. He improved rapidly, without any untoward symptoms, and in ten days left the infirmary for his home.

I saw the patient on the 30th ult. (August) driving a team. He looked hearty, and expressed himself as feeling as well as he ever did; had gained considerable flesh since the date of operation; suffered no more from headache, neuralgia, dimness of vision, or anything of the kind. The region of the wound, he said, was somewhat tender when touched forcibly, but otherwise gave him no pain or inconvenience; and the wound was so nearly cicatrized that he might be said to have made a complete recovery.

LOUISVILLE, SEPTEMBER.

REMOVAL OF A PESSARY FROM THE BLADDER, WITH REMARKS.

BY LEVIN J. WOOLEN, M. D.

Mrs. W., an invalid for some six years, had during that time been under the care of different physicians, all of whom treated her for some form of uterine disease. The *os* and *cervix uteri* had been cauterized with different agents, and many kinds of pessaries had been used to support what was supposed to be a prolapsed womb. So far as I was able to ascertain, she never at any time had displacement of the uterus; but there was this peculiarity about her case: at times, having no reference whatever to her menstrual periods, she would be seized with bearing-down pains, resembling in force and character the pains of active labor, which would readily yield to what she was pleased to term a replacement of the womb. It was therefore thought advisable by the physician in attendance to resort to pessaries, and being disappointed in the use of the ordinary kinds he finally procured one of the "horseshoe" pattern, and in attempting to place it in a proper position to support the uterus had the misfortune to push it through the urethra into the bladder.

I saw the patient some six hours after the accident happened, and found her suffering with severe bearing-down pains, the paroxysms of which would last about five minutes, with intervals of ten minutes' rest. She informed me that the pains were becoming harder and more frequent, and thought they were due to the presence of the instrument in her womb; for as yet no one had ascertained the precise locality of the missing pessary. Finding on examination that the *os uteri* was closed, I concluded that the instrument was certainly not contained within that organ. Exploring the walls of the vagina with my finger, I detected a hard substance within the bladder. On introducing a male catheter, in lieu of a sound, I found no difficulty in striking the pessary.

With such instruments as I had at hand I attempted dilatation of the urethra and extraction of the foreign body. In these attempts, however, I was unsuccessful, and yielding to the solicitations of the patient and her friends I made an incision into the urethra, commencing at a point half an inch behind the meatus and extending to the neck of the bladder, some of the fibers of which were divided. The pessary was now readily removed; a gum catheter was left in the urethra, and the patient ordered to keep perfectly quiet.

The wound in the bladder failed to close; and the patient was rid of the pessary at the expense of a vesico-vaginal fistula and partial incontinence of urine. I attempted to cure the fistula by two successive operations. The first was a total failure; the other only partially successful, union occurring at two points, thus converting one large fistula into three smaller ones. The patient died, three years after the accident, with some disease the nature of which I could not ascertain.

REMARKS.—The report of a case is valuable in so far as it teaches new facts or enables us to correct error. I shall examine a few points connected with the foregoing case, believing that they afford lessons of practical utility.

First. The proper introduction of a "horseshoe" pessary is not as easy of execution and as free from danger as may have been heretofore supposed. The physician in whose hands the unfortunate accident above mentioned happened is certainly not a rash one, nor was he altogether inexperienced. Precisely how the mistake occurred seems to him at least a mystery.

Second. With regard to the method of extraction, it may be argued that the pessary should have been withdrawn through the urethra. At first glance such an opinion is certainly plausible; for as it was originally forced along the urethra why not extract it through the same channel? The peculiar shape of the instrument rendered its removal in this way utterly impossible. Whether I should have succeeded better had I had the instruments needed in the operation is, I think, at least doubtful. The shape of the pessary became an insurmountable barrier to its removal through the urethra. When, for instance, one of the extremities of the instrument was brought to the internal orifice of the canal, other parts would be pressing against the tissues in such manner that no further advance could be effected. I therefore, after a long, faithful, and tedious trial, gave up all hope of extracting the pessary *per urethram*, and so proceeded to incise the canal.

Third. Was the operation properly performed? In the main I think it was. Believing that the case would undergo legal investigation, I operated according to the books. Selecting the plan laid down in "Gross on the Urinary Organs" as having been successfully practiced by Dr. Baker, of New York, I aimed to follow the directions there given to the letter. One step of the operation, however, I am inclined to think was not properly performed. Having no probe-pointed bistoury at hand, save one that was curved on the sharp, I necessarily divided the fibers at the neck of the bladder somewhat freely. Were I again to operate for the same trouble I should take good care not to injure any of the tissues at that point. The difficulty of extracting the pessary being due almost entirely to its *shape*, I now think that by cutting down to the neck of the bladder, *and no further*, I might have withdrawn the instrument without much difficulty.

Fourth. Was the after-treatment correct? By no means. And here I venture to say that the advice laid down in most surgical books is radically wrong. The books to which I have had access direct that we should leave a catheter in the bladder and enjoin perfect rest on the part of the patient—quoting exceptional cases to prove that union of the divided parts will occur, and the patient escape fistula. Further on they tell us that to cure fistula we must pare well its edges, bring them together in perfect apposition, and maintain such apposition by ligatures properly applied. Why not say that the ligatures should be applied as soon as we have extracted the foreign body? Surely never again can we have such perfect apposition. The hand of the surgeon, wielded with ever so much skill, can not pare the edges of a fistula so that they will fit as accurately as when first divided; for he who has placed a knife against the hardened edges of a urethro-vaginal fistula knows that to pare them well is both a difficult and tedious task.

The expulsive pains heretofore alluded to proved a very formidable obstacle to the success of my attempts at closing the fistula. To them and to the resulting difficulty of retaining a catheter in the urethra—the instrument escaping the second day after the operation, during the absence of the nurse, and remaining out some twelve or fifteen hours—I attribute the partial failure of my second operation.

MOOREFIELD, IND., OCTOBER.

[The above is the fifth recorded case of introduction of the open-lever pessary into the bladder — Dr. H. R. Storer having reported two, Drs. T. O. Edwards and Byford each one. The only feasible method of removal, according to Dr. Storer, is by the urethra. Failing in this, we should prefer simply a vesico-vaginal opening to one involving the urethra. — T. P.]

ON THE TREATMENT OF TYPHOID FEVER.

BY J. HALE, M. D.

Typhoid fever is an infectious disease, and, like all other diseases of that class, runs a definite course. It produces no necessary or direct change in the structure of any of the vital organs of the body, and has a strong natural tendency to terminate in health. This is seen when the disease is left entirely to itself, as well as when it is subjected to the various modes of treatment. This tendency to recover has been a constant source of fallacy in our observations on the effects of different remedies in the disease, and has led many observers to attribute to certain drugs results which were due to the workings of nature. Hence the endless variety of remedies that have been recommended in the treatment of this fever. We have no remedial agents that will arrest the progress of the disease, or even materially abbreviate its duration. The most that we can hope to do is to conduct it through its course to a favorable termination. The means necessary to accomplish this end are not to be found in a single remedy or fixed course of treatment, but only in the judicious use of various remedies.

In mild, uncomplicated cases, I have found but little medication necessary. I begin the treatment by giving a purgative dose of calomel or blue mass, or, if mercurials are contraïndicated, I prescribe castor-oil and turpentine; and after the bowels have been moved I give fifteen grains of chlorate of potash, dissolved in half a glass of cold water, every three hours. I have been using this remedy in the treatment of typhoid fever for several years, and have found it to act well as a diuretic and diaphoretic, besides its salutary action on the blood, and on the irritable or inflamed mucous membrane of the intestinal canal, so common in this diaease.

To reduce the temperature and control the febrile excitement I have found no remedy equal to water, applied either cold or warm, as may be most agreeable to the patient. I apply the water by means of a sponge to the entire surface of the body every two or three hours, or by a bath, to be repeated as often as necessity may require. I continue the use of the water throughout the entire course of the fever, regulated as to temperature and frequency of application by the indications present in each case. I have seldom found it necessary, in mild cases, to use any other means in the early stage of the disease than those above mentioned.

The bowels need but little if any attention in this stage; the diarrhea I never interfere with unless it becomes exhausting in its effects, and then I only aim to control it in some degree, which I do by the use of acetate of lead and opium in sufficient doses to accomplish this end.

In the more severe cases of the fever, or when the remedies I have mentioned fail to moderate the fever in sufficient degree, I give veratrum viride or digitalis in sufficient doses to control the circulation. If the pulse rises to one hundred and thirty or one hundred and forty a minute, and the temperature to one hundred and five or one hundred and six degrees Fahr., death is liable to occur from "paralysis of the heart," or some serious injury may be done to other vital organs by the intensity of the fever. In such cases I have been in the habit of administering veratrum viride, in tincture or fluid extract, in sufficient doses to reduce the pulse down to seventy or eighty, and of continuing it as long as necessity required. In delicate or aged subjects, and when the veratrum produces much nausea, as it sometimes does, I prefer the digitalis, given in substance or infusion, in sufficient doses to accomplish the desired end. Fifteen to twenty grains may be given in twenty-four hours, if necessary, without fear of injury. So soon, however, as the pulse is materially reduced in frequency I stop the digitalis, and I never have found it necessary to resume it again. The pulse in some cases continues to fall even below its normal frequency, and this reduction I have known to continue in some cases for several days in succession.

I have used these remedies for several years in the treatment of typhoid fever, and have never known them to fail to reduce the pulse and temperature in a marked degree when given in efficient doses. I have seldom found it necessary to use the veratrum or digitalis for a longer time than a week or ten days.

I have given the sulphate of quinine in full doses in typhoid fever with very decided benefit. Given in the early stage of the disease, in ten grain doses every four hours, it seldom fails to control the fever in a marked degree ; often producing a free perspiration, with a decided reduction of the pulse and of the temperature of the body. These effects, however, continue only so long as the sedative effects of the quinia are maintained. If the quinia is omitted, the pulse and temperature soon rise again, proving conclusively that quinia exerts no curative influence over simple typhoid fever.

There is, however, a frequent complication in all malarial districts, in which quinia is a valuable remedy. We are meeting at this time in this city quite a number of cases of typho-malarial fever in which I have been using quinia freely, and with very decided benefit. These cases usually begin with a chill, followed by fever, which continues to be characterized by decided remissions in the morning and exacerbations in the evening, with diarrhea, and not unfrequently with hemorrhage from the bowels. In the treatment of these cases in the early stage I have relied entirely on the use of quinia and opium, and an occasional dose of blue mass. This treatment succeeded in every instance in subduing the malarial element, but left the patients still laboring under typhoid fever, which run its usual course, and demanded the ordinary treatment.

In the second stage of typhoid fever I have seldom found it necessary to employ any active remedies. I continue the use of water, employed two or three times a day, and the chlorate of potash as before directed. I have used the mineral acids in this stage with apparent benefit. The dilute muriatic acid, in fifteen drop doses in half a glass of water every four hours, is a remedy in which I have much confidence. I have sometimes found it necessary to prescribe wine or brandy in this stage, but I never employ them unless they are positively indicated. I believe the indiscriminate use of brandy in the management of typhoid fever, as is frequently practiced in this country, to be a very hazardous treatment.

To procure rest and induce sleep, when necessary, I give opium in some form. I am in the habit of giving an opiate every night. I never prescribe purgatives after the bowels have been once evacuated unless they are positively demanded. I have had cases where the bowels were allowed to remain constipated for ten days at a time without any unpleasant symptoms. If the bowels are too active I use acetate of lead and opium to control them. I consider it important in this stage of the fever to keep the bowels quiet.

In the third stage of the disease I have found it necessary, as a general rule, to use tonics and stimulants. I am in the habit of giving quinia in tonic doses, combined with extract of hyoscyamus or opium, if the bowels are too active, every five or six hours, and whisky or brandy every two hours. This course of treatment I have found to answer every indication in mild cases; but we not unfrequently meet with cases presenting special symptoms which require special remedies.

Tympanitis is a very troublesome symptom in some cases, for the relief of which I have relied almost exclusively on oil of turpentine, given in twenty-drop doses, with spirits of lavender, in drachm doses, in mucilage of acacia, every three hours, and continued as long as necessity required.

Diarrhea is often troublesome, and sometimes difficult to control. In this stage of the fever I have used in such cases, with more benefit than any other remedies, the nitrate of silver and opium, in doses of one grain each every four hours. Hemorrhage from the bowels if slight requires no special attention, but when profuse should be promptly arrested. I have never failed to do this with acetate of lead and opium in full doses every two hours, and injections of acetate of lead, ten grains to half a pint of cold water, thrown into the rectum after each evacuation, and the application of ice to the abdomen.

Delirium, when occurring in the early stage of the fever, needs no special treatment; but in the advanced stage it demands attention. I have seldom failed to control it with morphine and brandy, given as often and in such doses as necessity required. The hydrate of chloral is a remedy of some value in such cases, but my experience with it has not been sufficient to entitle me to any definite opinion in regard to its use as a remedy in delirium.

Epistaxis is a very troublesome symptom in some cases of typhoid fever, and has been especially so here this season. I have generally controlled it by injecting a solution of perchloride of iron into the nasal cavities, and when the injections failed I plugged both the anterior and posterior cavities. Bronchitis is a frequent complication, especially in the winter season, but requires very little treatment in addition to that employed in the treatment of the fever. Whenever other means seem to be demanded, I generally rely on counter-irritation to the chest by means of sinapisms or hot turpentine stupes, followed, if necessary, by flying blisters or the tincture of iodine freely applied to the front part of the chest two or three times a day. Pneumonia is a much less frequent but a more serious complication than bronchitis, but may be managed in about the same way. Coma and subsultus tendinum are symptoms sometimes met with in this fever, but seldom demand any special attention.

The hygienic treatment of typhoid fever is scarcely of less importance than the therapeutic. The sick-chamber should be large, well ventilated, and kept at a temperature of sixty degrees Fahr.; the bed and body linen should be changed at least every other day; the position of the patient should be frequently changed, especially in the advanced stage of the fever; the night-vessel used by the patient should be disinfected by putting into it a solution of chloride of zinc or permanganate of potash every time before it is used.

The patient's drink should consist of cold water, lemonade, etc., and should be allowed *ad libitum;* and if the patient should fail to call for drink it should be regularly administered. The diet should be regulated according to the indications present in each case, considering the stage of the disease, the condition and calls of the patient, etc. It should always be in liquid form, and in the early stage, as a general rule, should consist of rice-water, toast-water, the juices of fruits, buttermilk, etc. In the second and third stages it should consist of milk, eggs, beef-tea, soups, etc.

The calls of nature should be respected, as a general rule. I have had many cases in which the patient could only use certain articles of diet, and they were urgently craved and taken with great relish. I recently attended a lady whose stomach became so irritable during the second week of the fever that it would retain neither food nor medicine. On calling to see her one morning I found her in a state of great excitement, and she informed me that she must have some vinegar, salt, and pepper; that she had been craving them for several days, but her husband had refused to let her have them. She said she had slept none during the previous night in consequence of thinking about those articles, and that she had taken them when a child when sick with fever, and they had always agreed well with her stomach. To quiet her mind, and to test "Nature's voice" in this case, I ordered her to have them, and to use them in small quantities during the day until she was satisfied. On the next morning I called to see her and found her perfectly quiet. She informed me that she had slept well during the night, and that she had neither vomited food nor medicine since she commenced the use of the vinegar, salt, etc. She was much better in every respect, and continued so until convalescence was established. I have had many similar cases occurring in my practice, and have been in the habit of allowing my patients to take any article of diet, in moderation, called for by their appetites, nor have I ever known any unpleasant effects to follow. In fact I have long since made it a rule to inquire of my patients when they have no appetite if they can think of any article of diet they would like, and if they can I always allow it in moderate quantities.

During convalescence I caution my patients to be very particular as to their diet and the use of aperient medicines. I direct them to use castor-oil or a simple enema to open the bowels, when necessary, and to use no solid food for at least a week after all febrile phenomena have passed away.

OWENSBORO, KY.

A CASE OF CHRONIC SPERMATORRHEA.

BY J. R. BARNETT, M. D.

A gentleman, aged twenty-three years, has had spermatorrhea for about five years. Throughout almost that entire period he has been under the care of one medical man and another. He is remarkably intelligent, well educated, refined, and converses freely and appreciatively about his condition. He is scrupulously neat and cleanly in habits and person.

There is no reason to suppose that the disease has its origin in self-abuse, for he has always, *through choice*, had a room-mate and bedfellow, and has from the first made no secret of his complaint, and himself devised many ingenious contrivances to insure a lateral recumbency, he being satisfied that the emission only occured when he occupied the dorsal decubitus.

Very early in his disease, he consulted and rigidly followed the advice of a competent physician. He attributes his condition to the debility resulting from a studious and sedentary life at college, where, being ambitious, he confined himself too closely to his books, neglecting the necessary exercise and out-door recreations. He has no disposition to avoid female society; on the contrary, is as fond of it as most young men, and frequently attends parties and dances.

By medical advice, he left college some three years ago, and has since been at intervals under my treatment.

In addition to what had been advised by previous medical attendants and my own endeavors, I have during these three years consulted, orally and by letter, many prominent and experienced surgeons and physicians in different sections of the Union, touching his case, and have tested each and all the remedies recommended which had not been tried before, patiently and well. Some gave temporary relief; most produced no beneficial result at all.

From the first he has used cold water freely by shower, douche, sponge, and hip baths — the latter especially — always rubbing the skin briskly after bathing with a harsh towel until the surface was aglow. In addition he has had the tonics, vegetable and mineral; the ferruginous frequently, as he is somewhat anæmic; diuretics, bland and irritating; buchu; uva ursi; cantharides; potass. acetat., etc.; bromides of potassium and ammonium, in doses increased to the heroic point almost; bicarbonate of soda, on going to bed, as recommended by Dr. Dowling, of Galveston; cauterization at intervals by Lallemand's *porte caustique;* issues in the perineum; blisters and irritating applications to the sacrum; in short, not only the ordinary course as laid down in standard authorities, but many eccentric remedies and artifices too numerous to recount, and all without perceptible amelioration of the evil.

Some months ago, disheartened by the previous many failures, I ordered for him (I confess, with small hope of success) the following:

℞.—Acid. phosphoric. dilut., m. lxxv; Ext. ergotæ fld., ℥j; Tinct. colombo, ℥iij. M. S. A dessert-spoonful three times a day, half an hour before meals, in a small wine-glassful of water.

To my infinite surprise and gratification, a week afterward my patient reported to me that he had not had a single emission since the first day of his taking the mixture.

It is well to state here that his emissions were all nocturnal, except the secretions of the prostate and the urethral mucus, which frequently escape during defecation. They number from one to three nightly, and are most generally unattended by erection or lascivious dreams.

I have seen him almost every day since, and up to date he has been entirely free from his old trouble, and is radiant with the belief that he is permanently cured.

Not being able to procure the dilute acid at the time of writing the first prescription, I ordered a solution of the glacial acid, in the proportion of 38½ grs. to the fluid oz. of distilled water, which, agreeably to Wood and Bache, is about equivalent in strength to the officinal dilute acid. As it served the purpose so well, I have continued to use it.

I was induced to add the ergot by the hope that it might in some way influence the contractile tissue of the organs involved similarly to the manner in which it affects the uterus. Of the colombo I of course expected nothing, save its effect as a bitter tonic.

The mixture is not unpleasant to the palate, and keeps well during the time necessary to consume the above quantity of four ounces.

"*Ex pede Herculem*" may obtain in this instance; and claiming naught for originality in the above, though I have never either seen or heard of a similar treatment, I sincerely hope and believe that a trial of it in other hands, and by those having a larger field for testing it than is accessible to me, will result in good to others similarly afflicted upon whom other measures have failed.

If I had a case of chronic spermatorrhea upon which the bromide of potassium had not been effectually and persistently used, I would combine it with the above, with which it makes an elegant mixture.

VICKSBURG, MISS., OCTOBER.

Reviews.

Clinical Lectures on Pulmonary Consumption. By Felix Von Niemeyer, M. D. New Sydenham Society: London. 1870.

So valuable an addition as the above work is to the physician's library entitles it to a more extended notice than we can give it at present. The translator, Dr. C. Baeumler, of London, deserves many thanks at the hands of the profession for rendering into such clear and excellent English that which would be a *terra incognita* to those unversed in the German tongue.

Prof. Niemeyer's views as to the pathology of pulmonary consumption are those which are very generally entertained by continental authorities. It is not for us to say whether or not they are correct. Time and clinical research will have to determine this point. To express these views as briefly as possible, Prof. Niemeyer holds that the teachings of Laennec and others as to the nature of consumption are wholly incorrect. The cheesy deposits found in the lungs, heretofore denominated infiltrated tubercles, according to our author are not tubercles, nor are they specific products, nor the results of any specific constitutional taint or predisposition ; they are but transformations or degenerations undergone in a common acute or chronic inflammatory or pneumonic exudation. The old dogma that consumption can not be developed from an ordinary catarrh or pneumonia without an attendant predisposition, hereditary or acquired, is therefore contradicted. With him there is but one kind of true tubercle, viz., the *miliary* tubercle, as there is but one kind of true tuberculosis, viz., the *miliary* tuberculosis.

It is gratifying to both physicians and patients to observe that Niemeyer is of the belief that consumption is a very curable affection. Would that we could conscientiously think so! We envy the solace which such an opinion must afford him. But this favorable prognosis applies to cases of infiltrated cheesy deposits in the lungs, not to those in which there is a deposit of true miliary tubercles. Miliary tubercles may occur alone or in connection with the infiltrated masses. In the latter instance they are regarded as mere epiphenomena, but as such they complicate the case and render the prognosis more unfavorable. Hence the paradoxical assertion of the author that *the greatest danger to most phthisical patients is the development of tubercles.*

Hereditary influence and diathesis in the causation of pulmonary consumption are not given any very great prominence, indeed they are almost entirely ignored.

Among the causes of pulmonary consumption our author includes foreign bodies in the air-passages, chief among which stand blood-clots left after bronchial hemorrhage. The old doctrines of Hippocrates and Hoffman are therefore revived, while those of Louis and Laennec are discarded. The idea of pulmonary hemorrhage standing in the relation of cause to consumption seems strange to those who have always regarded it as an effect.

We notice nothing particularly novel in the author's symptomatology of phthisis, unless we except the differential diagnosis between miliary tuberculosis and chronic pneumonia. It is thought that the thermometer as a means of diagnosis is more available in phthisis than in any other affection.

The chapter devoted to the therapeutics of phthisis is exceedingly brief, but certainly long enough for all practical purposes. Niemeyer's treatment grows naturally out of his pathological views. Prophylaxis of acute catarrhal affections and the arrest of inflammatory exacerbations are the chief ends in view. In the fulfillment of the latter indication great confidence is reposed in rest and light diet, together with quinine, opium, digitalis, and other remedies of the sedative and febrifuge class. In the interval of acute extension of the inflammatory process everything which will sustain and invigorate is advised. While cod-liver oil is regarded as efficacious in most cases, the author claims that it is not superior to unskimmed milk and the large consumption of grapes. While he believes that there is no specific climate for phthisis, much good is accomplished by change of air from cold, bleak winters to a warmer atmosphere.

We have thus hurriedly sketched some of the salient points of this very able monograph. Its attentive perusal will amply repay those who are anxious to place themselves *au courant* with the van-guard in the onward march of practical medicine. Prof. Niemeyer is evidently an earnest worker, a profound thinker, and an accomplished practitioner, as the work before us and his elaborate treatise on the practice of medicine bear testimony. C. R.

Archives of Ophthalmology and Otology. Edited by Prof. H. Knapp, M. D., New York, and Prof. S. Moos, M. D., Heidelberg. Vol. I., No. 2. New York: William Wood. 1870.

This, the second number of the above excellent publication, is of even more interest and value than the first.

Prof. Knapp contributes an instructive paper on purulent otitis media, caused by the nasal douche, which we think will have the effect, wherever read, of making physicians recommend less indiscriminately this means of cleansing the nares. After considerable experience in the use of the nasal douche we can say that we have never seen any of the evil consequences which are now being attributed to it, but we can easily conceive how they may occur, and when cold water is used how they will occur in many cases. But there is no necessity for running *cold water* through the nose. It not only has the drawback of producing discomfort, and oftentimes actual suffering, but, as recent publications show, is attended by serious danger to the ears. But when warm water is used there is no reason to believe that it is capable of mischief; and, as a means of treating certain naso-pharyngeal diseases, it would be a serious inconvenience to the physician to do without the nasal douche. Prof. Knapp has abandoned it altogether, and instead applies remedies by the posterior nares syringe. In our hands, and using tepid solutions, we have not observed more, if so much, sneezing and coughing from the douche as follows the use of remedies by the syringe.

Dr. Blake, of Boston, describes a new form of wire snare for the removal of aural polypi, which we think is a great improvement on that of Sir William Wilde, the one in most general use.

That excellent ophthalmic surgeon, Dr. B. A. Pope, of New Orleans, contributes a valuable paper on the "Use of Acetic Acid in Affections of the Conjunctiva and Cornea." Dr. P. has found the acid useful in *warty degeneration* of the palpebral conjunctiva; in the relaxed condition of the conjunctiva of the cul-de-sacs, with hypertrophy of the epithelial layer, which sometimes follows chronic conjunctival disease; in some cases of trachoma in the stage of development, where the neoplastic growths were *very superficial*, and where ordinary applications seemed for the moment to favor the progress of the disease. When used for trachoma it should be applied seldom, and its application limited to the granulations, the surrounding conjunctiva being spared. Dr. Pope has further used the acid with benefit in a case of inflamed pinguecula, where excision was declined by the patient; in two cases of calcareous degeneration of the epithelial layer of the cornea; and in the hypertrophied condition of the lachrymal caruncle and semilunar fold in cases of pterygium. He thinks the acid had best be applied before removing the morbid growth, since the cure is expedited by having the tumors free from irritation before operation.

The acid used was of specific gravity 1.041 (No. 8). It was applied by means of the smallest size camel's-hair brush, and great care exercised that the brush should not hold too much of the acid. Its action is that of a mild escharotic, causing but transitory pain and only moderate reäction. It produces much less distress than either the sulphate of copper or nitrate of silver. "The slough comes away quickly and leaves a clean surface, which, as a rule, heals promptly." "It is well to remove any moisture from the surface to which it is to be applied."

The remaining papers in the volume are of unusual excellence; but, as they relate chiefly to the physiology and morbid anatomy of the organs, their chief interest is to the student of ophthalmology and otology.

The work is published in beautiful style, the paper and type being in every way admirable. No physician who desires to practice on the eye or ear should be without the Archives.

Report to the Surgeon-General of the United States Army on certain points connected with the Histology of Minute Blood-vessels. By Brevet Lieut.-Col. J. J. Woodward, Assistant Surgeon U. S. Army. Washington, D. C., 1870.

The views of Cohnheim upon inflammation, which have been for some years exciting great interest in professional circles, have led Dr. Woodward to institute a series of photomicrographic investigations, a report of which, in pamphlet form, accompanied by eleven large photographs, is before us.

As is well known, the theory of Cohnheim is based upon the discovery of stomata, or pores, in the walls of blood-vessels, and the exit through these, during inflammation, of white blood-cells, these then becoming ordinary pus-cells. He brings to the support of this revolutionizing theory many convincing proofs. Some histologists have succeeded in confirming these; others have failed. Dr. Woodward takes rank with the former class. His experiments and the accompanying photographs are well worth study.

He prepares fresh epithelium by moistening it with a solution of crystallized nitrate of silver in distilled water — one part to four hundred — and then exposes the specimen to the chemical action of light, which causes the boundaries of the cells to turn black, the cell contents usually undergoing no change. The nuclei are next stained with carmine, and the preparation then mounted according to one of the usual processes.

The first ten photographs and explanations go to demonstrate the existence of stomata, scattered along the boundary lines between the epithelial cells. He compares their appearance to the Wormian bones. These stomata vary in size from one four-thousandth to one ten-thousandth of an inch in diameter, and abound most in the walls of veins, one fiftieth of an inch in diameter. Dr. W. believes the failure on the part of Balogh and others to discover them is due to want of care in the use of the silver. White blood-cells are uniformly one twenty-five-hundredth of an inch in diameter, and the object of Plate II. is to show how these may escape through stomata one ten-thousandth of an inch in diameter. It is perhaps the most interesting of all the plates.

The position of the white cells in the still layer has long been known and variously accounted for. During healthy circulation they are rolled along, though slowly. During stagnation, as in inflammation, it is asserted that they exhibit amœboid movements, elongating and variously altering in shape, thus moving independently and escaping through the pores. Dr. W. has detected and photographed these curious amœboid movements of white cells taking place in the walls of a small vein of the inflamed stomach of a mare. He does not as yet accept *in toto* Cohnheim's conclusions, but looks upon the question as demanding further research. We hope to hear soon of a continuation of his valuable investigations. We are glad the subject has excited the attention and labors of the War Department. E. R. P.

A Treatise on the Theory and Practice of Obstetrics.

By W. H. Byford, A. M., M. D., Professor of Obstetrics and Diseases of Women in the Chicago Medical College, etc. New York: William Wood & Co. 1870.

Prof. Byford is worthy of all praise and honor for the industry and success which have marked his professional career. His history is a reproof to the indolent and a stimulus to every earnest worker. He commenced his professional studies, if we are not greatly mistaken, somewhat late in life, and under disadvantages which would have deterred one less brave and strong; and to-day he ranks among the foremost men of the American medical profession.

Dr. Byford's last work will add to, not detract from, his well-earned fame. While our preference is for Cazeaux or Hodge, we can easily find reason for commending Byford. As an abstract of the present condition of the obstetric art, clearly presented, it will be regarded with great favor by many, both practitioners and students. Its author is not a mere imitator, or an echo; possessing no mean erudition, he is also evidently one who thinks for himself, and his pages reveal a practical wisdom such as can only be derived from large experience and patient reflection.

Having said this much in commendation of Byford's Obstetrics, we have some fault to find. When we see one of our profession publishing himself as master of arts, we have a right to expect that he will at least write the English language correctly; indeed the title presupposes such a liberal education that its possessor shall write not only correctly, but with ease and grace.

Let us take a few sentences from Dr. Byford's Obstetrics, and see how the needless multiplication of words and their improper arrangement in a sentence — these are his chief faults as a writer — mar his style, obscure or even sometimes pervert his meaning.

In referring to the corpus luteum of pregnancy, he says: "The corpus luteum empty cavity of the ovisac correspondingly increases in size for several weeks." Undoubtedly the corpus luteum increases for three months or more, but not the "empty cavity."

When impregnation occurs, Dr. Byford tells us, "all the genital organs increase in vascularity, and remain turgid and swollen. Especially are the uterus and ovaria swollen. This continues until in a short time it merges into hypertrophy, and the uterus and ovary grow larger, acquiring more substance." Is not hypertrophy enough without growing larger and acquiring more substance?

Dr. Byford speaks of spermatozoa as "these entities, for they are not properly independent beings, although they have very much the appearance of it," etc. "Of it" — what it? Entity in its very etymology implies existence, being; but what the doctor means when he uses the word we do not know. Let us now take two sentences on page 130.

"In protracted diseases there are two general evils generated, to which our especial attention should be directed as having a peculiarly deleterious influence on the fetus — the deterioration of the blood as an oxygen-carrier, and the depression of the nervous energies which control the organic functions as a consequence, that preside over fetal development. . . . . . And to insure the patient against this evil I have for a number of years been in the habit of using chlorate of potassa in such patients, where disease has been protracted for a length of time, with good results, I think, generally mixed with food of an appropriate character," etc.

In the first nervous energies control the organic functions as a consequence, and in the second good results are mixed with food of an appropriate character.

If these were only occasional *maculæ* we would not have noticed them; nor indeed would we did they not occur in the writings of a master in the profession, who, by these errors—proceeding probably in most instances from carelessness—will lead many who read them into the commission of similar ones, for the style of an author whose teachings are admired will often contribute to mold the style of his readers.

There are other subjects of criticism in Dr. Byford's Obstetrics. "Feti" is given as the plural of fetus, a mistake which no boy who has been as far as the fourth declension in Latin grammar should make. We have animalcula twice for animalculæ; and, among the lesser errors, twice Dr. Stephens takes the place of Dr. Stephen Rogers, and once each Tarnier and Baudelocque appear as Tanier and Boudelocque. Our author is another one of the many instances where great professional learning and marvelous professional skill are linked to but meager scholastic attainments. There are many such in the profession in this country.

The Morbid Anatomy of the Placenta. By JAMES T. WHITTAKER, M. D., Cincinnati, Ohio. (Reprinted from the American Journal of Obstetrics.) New York: Townsend & Adams.

For this essay its author received a prize of one hundred dollars in gold. The criticism of a production bearing such evidence of merit and value would be a bold undertaking.

Entertaining for its talented and industrious author feelings alike of admiration and personal regard, rather than attempt to play the critic, as a friend we present our congratulations on the success which he has achieved.

A complete analysis of Dr. Whittaker's paper would occupy more space than the practical character of our journal permits. We must be content with saying that he has well-nigh exhausted the literature—more especially French and German—of the subject; and yet let us suggest that in Priestly on the Gravid Uterus and in various volumes of the Transactions of the London Obstetrical Society there will be found a few truths and cases which might add, if that were possible, to the riches which he has accumulated.

A Sketch of the Early History of Anatomy. An Introductory Address at the Philadelphia School of Anatomy by WILLIAM W. KEEN, M. D., Lecturer on Anatomy at the Philadelphia School; Lecturer on Pathological Anatomy at the Jefferson Medical College, etc. Philadelphia: P. Madeira. 1870.

This is a pamphlet of thirty pages, containing the best account of the progress of anatomy with which we are acquainted. It is not, as such things generally are, a transposition from *Renouard*, but is drawn from original sources, ranging from Hyrtl's Hand-book to the Newgate Calendar.

Dr. Keen has combined in the authorship of this lecture the erudition of the scholar and the enthusiasm of the anatomist. It is both curious and instructive, and will prove intensely interesting to lovers of anatomy, and ought to stimulate students to make use of their present advantages, seeing what names have been won in this field, and at what sacrifices.

We are glad so valuable a contribution to our medical literature has been preserved in a permanent form. R. O. C.

Manual of Human and Comparative Histology. Edited by S. Stricker: Assisted by J. Arnold, Babuchin, O. Becker, Biesiadecki, J. Boll, E. Brücke, Cohnheim, Eberth, Th. W. Engelmann, Gerlach, Iwanoff, E. Klein, W. Kühne, Langer, v. La Vallette, Leber, Ludwig, Sigmund, Mayer, Mynert, W. Müller, Obersteiner, Pflüger, Preyer, v. Recklinghausen, A. Rollett, Rudinger, Max Schultze, F. E. Schulze, Schwalbe, Schweigger-seidel, Ludwig Stieda, C. Toldt, E. Verson, Waldeyer, and others. Volume 1. Translated by Henry Power, M. B., Lond., F. R. C. S., Ophthalmic Surgeon to St. George's Hospital; Examiner in Physiology and Comparative Anatomy in the University of London. The New Sydenham Society: London. 1870.

Thirty-two years ago histology could hardly have been said to exist as a separate science, so imperfect and incorrect was the sum of knowledge upon the subject. Since that time, however, it has made rapid strides onward. The first cell theory originated in Germany, and the preponderance of later discoveries dates from the same source. So far we have had little else than disjointed essays for our instruction. Kölliker's Manual, at the time of its publication a most excellent and comprehensive work on microscopy, was soon left far behind in the wake of progress, and Virchow's Cellular Pathology has not yet been followed by its promised and essential sequel. The work before us is certainly far in advance of anything extant, and fully up to the times. Written after the plan of Reynolds's System of Medicine and Holmes's System of Surgery, it has among its list of contributors the names of many of the most celebrated histologists of our day, and their various articles bear witness to their ability.

The various and valuable improvements in microscopical appliances chronicled in the introductory chapter, calculated to preserve unimpaired during examination the normal delicacy of specimens, point unmistakably to mechanical ingenuity as the motive power of further progress in this department of science.

We sincerely regret the want of space for a review of the work chapter by chapter. It emphatically fills an existing void, and should be owned and read by every physician who feels an interest in the scientific basis of medicine. The chapter on the lymphatic system by Von Recklinghausen is alone worth more than the price of the entire book.

The present volume contains essays on general methods of investigation, and on cells, connective tissue, muscular tissue, nervous tissue, the blood-vessels, the lymphatic system, the alimentary canal, the heart, thymus, thyroid, etc.

We trust the translation will soon be completed. As is seen by the title-page, this labor has been performed under the auspices of the New Sydenham Society, who, in thus giving to the readers of the English tongue so valuable a work, merit the highest praise. E. R. P.

Clinic of the Month.

A Horseshoe Pessary in the Bladder. — In commenting on a case reported to the Gynecological Society of Boston by Dr. Edwards, in which a physician introduced a Hodge's open-lever pessary into the bladder, and for its removal resorted to incision and force, with the result of much subsequent suffering, and a persistent vesico-vaginal fistula, Dr. Storer remarked: "It would be supposed by many that the accident was almost an impossible one to occur in skillful hands. This was, however, a mistake. In the two cases which he had conducted the previous attendants were gentlemen familiar with their art. The truth was that those who were constantly using pessaries became almost too expert; their very adroitness of itself engendered a species of carelessness. It was easy to see how, in the case of an unmarried woman with a narrow vulval opening, and sensitive at that, the point of one of the lateral rods of the pessary might become engaged within the orifice of the urethra; entering a short distance, and receiving the over-twist motion or semi-rotation, it might easily escape from the grasp into the vesical cavity. He believed it was very much easier thus to introduce than to remove it, and that, as he had indicated when putting the first case of the accident upon record, the only feasible method of removal was by the way the pessary went in — through the urethra. Dr. Byford's case received additional interest from the fact that the patient was pregnant; the pessary remained within the bladder for three months, and was finally extracted without interfering with the progress of gestation. As to the proper method of introduction of the horseshoe pessary there was a frequent want of understanding upon the part of physicians. He had known instances where, instead of introducing one limb first and swinging the instrument by semi-rotation into its place, the cross-bar had been forced squarely in, just as in the case of the closed lever; whereas in fact the largest horseshoe, properly introduced, could easily pass through an opening that would not admit the smallest closed lever, as was seen in these bladder cases." (Journal of the Gynecological Society of Boston.)

BLOOD-LETTING IN UTERINE DISEASES.—Dr. Storer says: "While there were few gynecologists that did not believe in local blood-letting, as few resorted to its general abstraction, except in very exceptional cases. In a much larger proportion of the cases presenting themselves for treatment there was anæmia rather than plethora; and anæmia from prolonged and exhaustive discharge, not necessarily of blood, but of fluids akin. Where it was necessary to deplete, it was aimed to produce the desired effect with the smallest possible actual loss of blood. Leeches were now but seldom applied in this part of the country. Their employment was tedious, and, if used within the vagina, care had to be taken not merely to keep them from entering the uterine cavity, but that they only attached themselves to the cervix and not to the vaginal wall, for fear of excessive hemorrhage, controllable with difficulty. Local depletion of the cervix by scarification was far preferable, or rather by puncturation—for to puncture, and somewhat deeply, was better than to superficially incise the mucous membrane. This, however, was of advantage in hyperæmia of the uterine cavity. It was often of advantage, instead of blood-letting, to obtain a free discharge of serum from the cervical capillaries by the application of glycerine, as suggested by Dr. Marion Sims. This method might very properly be termed salivation of the cervix. The importance, in reference to inflammations of the uterus and ovaries, of attending to any form of rectal disease that might be present should not be forgotten. Dr. S. believed that in many instances of pelvic cellulitis and parametritis the disease might be cut short, if properly diagnosticated in its earlier stages, by appropriate antiphlogistic treatment." *(Ibid.)*

DIGITALIS AS A STIMULANT IN HEART DISEASE.—Blair D. Taylor, M. D., one of the physicians of Bellevue Hospital, New York, calls attention to the use of digitalis as a stimulant to the heart when, by reason of disease, it has become too feeble to send the blood into the radial artery. In a case of this sort, which he reports at length, the tincture of digitalis, administered in large and quickly-repeated doses, restored power and regularity to the heart almost instantaneously. Dr. T. claims that the tincture of digitalis, in doses of one half to one drachm, exerts both a powerful and immediate *stimulant* effect on the enfeebled heart, and becomes a valuable agent where sudden death is threatened in heart disease. (New York Medical Journal.)

PHOSPHATE OF LIME IN NIGHT SWEATS OF PHTHISIS.—M. Guyot recommends as particularly useful in the sweats of consumption the phosphate of lime in quantities of from one half a drachm to a drachm and a half in the day. In a small proportion of cases it seemed inert; in the majority it diminished or quite removed the trouble. *(Ibid.)*

ON THE HYPODERMIC USE OF MORPHIA IN DISEASES OF THE HEART AND GREAT VESSELS.—In an article on this subject Dr. T. Clifford Allbott says: "I use the hydrochlorate of morphia in doses varying from one tenth to one third of a grain; I seldom use half a grain, except in such a case as intense pain from angina or intrathoracic tumor. I always begin with one eighth or one sixth; and in ordinary cases I find a quarter of a grain the proper dose—in a case say of mitral regurgitation with pulmonary congestion in an otherwise healthy adult. The dose is best given in an evening, and should always be followed by perfect quiet in the room. This last is an important element in all cases of injection of morphia. The urine should be examined, and the drug withheld or given with caution if albumen be found. I think, however, there need be no great fear of it during albuminuria only secondary to the heart disease, unless there be reason to suppose that excessive renal congestion be present and head symptoms at hand. As regards the class of cases in which the morphia is useful, it gives the most striking relief in angina with diseased coronary arteries, etc., in neuralgic distress from intrathoracic tumor, and in mitral regurgitation. It is very valuable also in small doses in so-called 'irritable heart,' whether this be due to weakness of the organ or instability of its nerves. It is less useful in disease of the aortic valves, and I think it is less valuable in mitral obstruction than in mitral regurgitation. In aortic disease, however, where the heart is big and pumping, it gives much ease." (*Ibid.*—Practitioner.)

THE USE OF CANNABIS INDICA BY SMOKING.—The cigarettes of cannabis indica, made by Grimault, of Paris, have been found most efficient in the treatment of affections of the organs of respiration and circulation, no less than in affections of the central and peripheral nervous system. The unpleasant effects which so often follow the internal and subcutaneous use of opium and of cannabis indica are not produced by the cigarette. Their use is recommended—1. In spinal neuroses, chorea, and epilepsy. 2. In neurosis of the sensory nerves, neuralgia of the teeth, branches of the fifth pair, the sciatic nerves. 3. Neuroses of the motor nerves, spasm of the throat and air-passages. 4. Affections of the sympathetic nerves, hysteria, and other diseases not attended with plethora, and congestion of the head, heart, or lungs. They are especially useful in asthma, pertussis, spasm of the stomach and intestinal canal, nervous palpitation of the heart, and exert a quieting influence over the whole nervous system. *(Allgemeine Medizinische Zeitung.)*

HOW INFECTIOUS DISEASES ARE CAUSED.—Prof. Huxley, in his inaugural address before the British Association, pays the following tribute to Prof. Lister's writings on antiseptic surgery: "It seems to me impossible to rise from the perusal of those publications without a strong conviction that the lamentable mortality which so frequently dogs the footsteps of the most skillful operator, and those deadly consequences of wounds and injuries which seem to haunt the very walls of great hospitals, and are even now destroying more men than die of bullet or bayonet, are due to the importation of minute organisms into wounds, and their increase and multiplication; and that the surgeon who saves most lives will be he who best works out the practical consequences of the hypothesis of Redi." (Medical Mirror.)

SULPHATE OF BUXIN AS AN ANTIPERIODIC.—The employment of sulphate of buxin has recently been recommended by Gaspare Pavia, a chemist, as a febrifuge, and has been tried by Dr. Casati. He experimented on forty-five patients, twenty male and twenty-five female, the ages varying from five to sixty years. The type of the fever was tertian in twenty-five cases, quotidian in ten, quartan in five, tertian-duplex in one, and four were anomalous. The result was satisfactory in thirty-six cases, but in eight unsatisfactory. In each of the latter only two doses of the salt were administered, the patient desiring that quinine might be employed. Of this one dose removed the symptoms, showing that the buxin had modified the disease, and had it been longer persisted in would probably have effected a cure. The amount taken was equivalent to about fifteen grains, which the patient took in six or eight powders during the period of apyrexia. In one patient seven grains effected a cure, while in ten adults it was found requisite to repeat the dose in order to remove the attack. A relapse only occurred in two instances. Twenty of the thirty-six cures were immediate; in the remaining sixteen one or two slight fits were subsequently observed. The salt did not in any instance produce any injurious effects, except perhaps in one, in which the second dose produced some faintness. All intermittent cases treated were free from complications. Buxin acts like quinine, and with the same energy in moderate cases, but in severe cases quinine is preferable. Buxin is in general to be preferred to quinine on account of its superior cheapness, and is especially to be recommended in those cases in which there is some idiosyncrasy on the part of the patient rendering quinine an objectionable remedy. (*Wien Wochenblatt*—Practitioner.)

FLY BLISTERS IN RHEUMATISM.—Mr. D. McGregor, writing on blistering in acute rheumatism, says: "In a former number of this journal, while writing on another subject, I took occasion to state that in all cases of acute articular rheumatism coming under my care I applied fly blisters to all the joints chiefly affected with the best results. I would only say of it now that a more extended expérience of this practice confirms the opinion I then expressed, that no remedy I have yet seen used produces so speedy and effectual a relief nor is followed by less annoyance than this mode of treatment. Among the class of patients I have had to deal with articular rheumatism is very common, and whether accompanied by fever or not, and however swollen or painful the joints, my regular practice is to apply at once a blister to every one of the joints seriously affected. Within twenty-four hours the relief is complete. On the removal of the blisters linseed-meal poultices are applied over the situations so treated for a few days, as the case may be, after which nothing more is necessary; the patient is well, so far as rheumatism is concerned; but I have noticed a greater tendency than usual to catching fresh colds after this treatment, and I therefore keep the patients longer in bed than is necessary on any other ground, to avoid this risk. Generally a few days suffice for this, depending on the state of the weather. I have had no difficulty with the urine after blistering, and I am almost certain there is less risk of the heart becoming affected by this treatment than by any other I am aware of. I can not presume to say how or why the blistering acts so successfully in rheumatism, unless it be owing to the tendency the poison has to attack the fibrous structures of the joints, and that blistering not only determines it still further toward them, but makes way for its escape from the system in the serous discharge which follows. It may be argued against this practice that it is too severe and painful in itself, and would not be submitted to by higher-class patients. But if the treatment be as successful among these (which I have not ascertained) as among the poor, I am persuaded that the almost immediate relief obtained and the rapid recovery made are advantages not to be compared with any objections that can be urged against it." (New York Medical Journal—Edinburgh Medical Journal.)

ON THE USES OF WINES IN HEALTH AND DISEASE.—In a series of admirable papers on this subject contributed to the Practitioner by its editor, Dr. Anstie, we find the following:

In Anæmia.—Anæmia resulting from hemorrhage nearly always does require and is immediately benefited by the use of alcohol; and this is best given in the form of full-flavored and potent wine. For such purposes full-bodied port-wine of moderate age, but retaining much of the richness of its original flavor, is decidedly the best agent; and we may venture to administer it with considerable freedom (*e. g.*, twelve to sixteen ounces, or six to eight small port-glasses for an adult) on the condition that we never produce symptoms of narcosis. It will be found that these quantities are often well borne at first, but they must be rapidly and steadily reduced as the patient's condition improves, and as he becomes more sensitive to the action of alcohol. It is much more difficult to say whether or how much alcohol ought to be given in cases of anæmia which verge toward the chlorotic type. As a general rule, we strongly object to its use in this form of blood weakness, for we have found it complicate matters by increasing the headache and distaste for food, without really advancing the blood regeneration in the slightest degree; moreover wine has a tendency to make this class of patients more hysterical and self-indulgent than they otherwise would be. Exception, however, must be made for the case of rapidly advancing chlorosis of a dangerous type, with profound melancholy. Here the use of stimulants, and especially of generous port-wine, is often our most valuable resource; although it can only divert the course of the disease, and give breathing time to allow of the effectual use of tonics, food, and hygiene. Again, there is a class of anæmic cases in which the true source of mischief is nothing more than *neglect of bed*, coupled or not with anxiety and worry of mind. If this neglect of rest be inevitable, from the press of necessary work, then, imperfect as the remedy may be, we believe that alcohol must be allowed, and that pretty freely. It is an error to suppose that alcohol does nothing more than enable such persons to use up their brain tissue faster, and thus get more work out of themselves for the moment. We can not doubt that it affords substantial assistance, whether by the production of brain-force or possibly by aiding the nutrition of nervous tissue. Only it must always be remembered that the repair of all tissues is far more effectually provided for by periods of rest from strenuous exertion, allowing time for the more slowly convertible elements of food to have their full effect.

In Hydræmia.—We believe that no absolute rule as to the use of alcohol can be laid down, some such patients appearing to bear stimulation very badly. In the great majority of such cases, however, it is quite necessary, and the main point is to employ it in that form which will exert the maximum good influence upon appetite and digestion. We have always found the greatest effectiveness in port or sherry or marsala.

In Phthisis.—There are two classes of cases in which alcohol appears to play an important part in the arrest of phthisis. In a class of patients who have delicate skins and perspire very freely, and with whom at the same time oil and fatty matters habitually disagree (a not very common combination of conditions, but one which is seen in a certain number of instances), we have more than once seen remarkable effects produced by the entire abandonment of all medication, and the employment of large doses of spirit—whisky or rum; and a singular point in these cases was the *tolerance* of alcohol that was shown, even from the first. Even where the patient, however, is not affected in the peculiar way above indicated, and where he is able to take a fair amount of fatty and other nutrient matters, there is an important use for alcohol in certain contingencies, though we believe that it should be excluded from the routine of his daily life. We refer to the occurrence of hectic and other symptoms of acute softening; and we hold that there is a great want of discrimination in the way in which wine-treatment is often recommended or forbidden by authorities in these cases. The question must here be judged just as we have proposed that it should be judged in cases of acute disease—*experimentally.* In each case the effects of experimental doses upon the form of the pulse-wave, and on the temperature and the elimination of alcohol by the kidneys, should be carefully tested. When alcohol reduces temperature and the dicrotions of the pulse, and fails to pass away in notable quantity by the kidney, it *always does good;* but the slightest degree of narcotic action of alcohol is decidedly harmful. As regards the form of alcohol to be employed, the main thing to be considered is the patient's fancy, as this will very generally indicate the proper forms of stimulant. Only we ought to be careful to know the alcoholic strength of the liquor, whatever it be, and we ought to be sure that the wine is free from acetous decomposition.

In the Wasting Diseases of Childhood.—Here there are a variety of conditions in which the judicious use of alcohol is invaluable; and here the stronger wines are invariably to be preferred, especially sherry. We have already referred to the use of small quantities of sherry in the case of children who, without manifesting any signs of positive disease, show a marked tendency from time to time to run down suddenly in flesh. But wine has a much more positive value in infantile wasting which is the expression of a serious constitutional vice. Among the conditions of this kind we may especially notice the scrofulous and the rickety forms of disease, and beyond all, well-pronounced tabes mesenterica. It is rather remarkable that the evident superiority of steel wine to other ferruginous preparations in the majority of these cases has not led to a more general consideration of the probability that the vinous part of the medicine goes for much in its effect upon the organism. Our own attention was principally called to the use of wine in infantile marasmus by the preeminent efficacy of the vinum ferri; and since that time we have very often made the experiment of relying on wine without the iron. The results have been excellent; and, in studying the matter as closely as we could, we have been led to the conviction that it is principally by fortifying the functions of primary digestion that the remedy produces its good effects. It is now our invariable custom to commence the treatment of all cases of tabes by prescribing a fixed allowance of sherry (given as medicine preferably, with the addition of a vegetable bitter) at the rate of from one to two ounces per diem. Nor does it make any difference whether the case be complicated with diarrhea or not, only in the latter instance there is nearly always additional reason for strengthening the function of primary digestion, and wine is especially useful; though careful avoidance of food that is difficult of digestion is an essential condition of success. But it is especially in warding off true tuberculosis from children that the value of wine is conspicuous; and were this more generally recognized we believe that phthisis of children, instead of being so fatal a disease as it is, would rarely develop in a fatal form at all; of course supposing that all proper hygienic precautions were adopted, and especially a liberal supply of simple and nutritious food. Wine should always be given to young children in the form of medicine, and not as a beverage at meals; since it is important not to set up a liking for it which, when the child arrives at the critical period of puberty, might have an unfortunate influence on the further development of the emotional and sensual part of his nature.

In Chronic Neuroses.—Certain chronic neuroses of the latter part of life present special aspects in which wine becomes an important consideration. We refer especially to that exceedingly severe and intractable form of neuralgia (most commonly facial) which is rarely or never developed until after the age of forty, and which once developed resists remedies with such pertinacity. The reflex irritation which the disease sets up is often fatal at once to appetite and to sleep, and wine is the true remedy for this part of the mischief. In elderly persons we have personally seen cases in which, when the stomach would retain scarcely anything else, it was quieted, and the patient's strength was admirably husbanded and fortified by an almost exclusively alcoholic diet—twelve to eighteen ounces of sherry per diem, continued for several days. The older the wine, the more endowed with ethereal ingredients, the more effective is it for this purpose. Still we have seen patients greatly benefited by large doses of spirit which was practically little more than alcohol.

In Chronic Mucous Discharges.—In chronic catarrh of bronchial or nasal mucous membrane, chronic leucorrhœa, etc., their use is a very doubtful matter. That they frequently relieve the sensations of depression and discomfort which these affections cause is unquestionable, and in the case of the chronic bronchial catarrh of the aged it may be that they are indispensable. As regards the commonest of all chronic mucous discharges—leucorrhœa—we have long been learning with increasing strength to believe that the treatment is almost unmixedly mischievous; at any rate that alcohol ought never to be prescribed, whatever the apparent degree of depression, save in very small quantities of wine, preferably claret, Hungarian Carlowitz, or some of the rough red Greek wines, taken with meals to assist appetite and stimulate primary digestion. The true remedies are local astringents and the free application of cold water, combined with the most persevering use of exercise in the open air. And alcohol offers the most serious temptations to women suffering from the deadly languor often associated with profuse leucorrhœa, temptations which they would do well never to face. There is a particular use of alcohol, however, in one form of chronic catarrh, viz., the chronic pseudo-dysentery of young children, which is really of high value. Directly astringent *medicines* are of almost no use in these complaints; and the only drugs that should be employed are ipecacuanha, with or without very small quantities of opium. But a slightly astringent red *wine* of fair alcoholic strength often is very useful. Some of the Greek wines have the requisite body, a useful degree of astringency, and an alcoholic strength conveniently intermediate between the lighter natural wines and the strongly fortified ports, sherries, and marsalas. Three table-spoonfuls a day for a child of three years old is a fair allowance.

In Chronic Suppuration.—There are at least two objects which alcohol can achieve in this state, and they are of so great consequence that the judicious use of this remedy is frequently decisive in averting serious and even fatal results. In the first place there is every reason to think that the free (but non-narcotic) employment of alcohol checks both the migration of white corpuscles and all the subsequent movements which go to the formation of pus ; and if it be true, as some suppose, that pus-cells are also formed from the division of the elementary tissues, there can be little doubt that this process also would be checked by the treatment. On the other hand, alcohol, especially when given in the form of stout or port-wine, marvelously sustains and fortifies the appetite and the primary digestion. The prompt limitation of chronic suppurative processes is by no means to be thought of—with our present knowledge—as a mere beneficial check upon the morbid action which is directly exhausting the bodily forces. It is all-important, because we have to dread absorptive infections, and the appearance of the true and almost necessarily fatal tuberculosis. How powerfully this argument ought to weigh with us is sufficiently apparent if we consider the case of chronic empyema, and the miserable frequency with which it is followed by fatal phthisis. The prompt evacuation of the pus, even in cases of large chronic abscess, if it were supplemented by proper local measures for cleansing the cavity and excluding fermentative processes, would far more frequently be followed by cure than is now the case, if it were associated with the intelligent use of alcohol. The copious and even reckless administration of stimulants is perhaps common enough ; but this is often mere waste. The patients will bear and require more alcohol than in health ; but there is no need for any great excess. The simultaneous use of alcohol and of quinine, according to the principles laid down by Binz, offers the true solution of the matter. From three to six wine-glasses per diem of port, each glass containing one grain of quinine, is we believe incomparably the best form of administration to employ in all these cases. But even here we must insist that it is absolutely necessary to judge by results, and to scrupulously reduce the allowance of wine the moment that even the slightest symptoms of narcosis present themselves. (Practitioner.)

THE TREATMENT OF THE INSANE WITHOUT MECHANICAL RESTRAINTS.—Henry Maudsley, M. D., writing on this most interesting subject in his usual attractive style, says: "The principle of the non-restraint system, in the true acceptation of the term, is, while avoiding a meddlesome interference, to make all the surroundings of the poor lunatic as tranquil, as orderly, as gentle as may be consistent with his proper care—to counteract the commotion in him by an absence of commotion in what is around him. The lunatic can not, any more than the sane person, resist the steady influence of his surroundings; he assimilates them unconsciously, and they modify his character for good or for evil. How little a system of mechanical restraint fulfills the conditions of the just principle of treatment is so plain that a wayfaring man, though a fool, can hardly fail to see it. An excited, active patient, urged by an uncontrollable instinct of movement, desiring and needing above all things freedom of limbs, is secured hand and foot by mechanical appliances; with what result? That he is provoked into furious mania, expends his energy in shouting and raving, and becomes dirty in his habits—dirtiness in some shape is in fact unavoidable under such circumstances. . . . . There can be no greater fallacy than that of supposing what is called a moderate use of mechanical restraint to be consistent with a general plan of treatment in other respects humane and beneficial. It must be dispensed with altogether, or deterioration will ensue in the patient, and all kinds of neglect and tyranny will be engendered by degrees, until restraints become the usual substitutes for forbearance and watchful attention. . . . It is necessary that the abolition of restraint should be absolute to be efficient; the principle of the non-restraint system will admit of no compromise. It must be allowed that when called to treat an acute case of insanity in a private house it is not always so easy to do without restraint as it is in an asylum where there are suitable appliances for meeting the difficulties which the excitement and violence of a patient may present. But if a medical man finds it absolutely necessary to employ mechanical restraint, he should, if he has the welfare of his patient at heart, send him elsewhere; for either it is not a fit case for private treatment, or he is without the requisite assistance and qualifications for treating it properly. . . . I do not hesitate to express a strong personal conviction that the use of mechanical restraint in any asylum, public or private, is an indication of a badly managed institution, and that its use in the treatment of private cases is unnecessary and prejudicial. Where it is entirely dispensed with there will be less excitement, fewer scenes of violence, less need of secluding patients, and earlier and more numerous recoveries than where it is in use. For it is not only an evil itself, but it is the fruitful parent of a multitude of ills, not the least of which is the certain deterioration of all who have any part in its employment, whether suffering or doing." *(Ibid.)*

QUININE IN SEPTICÆMIA.—The following directions were issued by Professor Binz to the surgeons in the German military hospitals, in order to enable them to test to the full the power of quinine to prevent the rise and limit the progress of septicæmia: 1. The combating of traumatic septicæmia by quinine must begin at the moment when nausea is first felt. The early detection of the indications is also aided by thermometric observation twice daily, and a sharp observation of the aspect of the wound. It will be proper in doubtful cases to begin quinine as a precaution: no harm can be thus done. 2. The administration of quinine must be continued some days after we have quite destroyed the septic poison. 3. For extensive wounds small doses are useless; nothing under thirty grains in the twenty-four hours is of any avail. It only produces an evanescent lowering of temperature. On particular days, and in severe cases, as much as sixty grains may be necessary. 4. The use of the officinal sulphate of quinia in powder, drinking spring-water after it, is absolutely bad. It upsets the healthy stomach, and in feverish gastric disturbances hinders absorption. The readily soluble hydrochlorate is best. As this is not readily accessible in the field, the sulphate may be dissolved, with a few drops of hydrochloric acid, in rain-water. 5. Where for some reason gastric administration is unadvisable, a solution of the hydrochlorate should be given in enema. The dose must then be one fourth larger. 6. The action of quinine goes on most securely if we give a strong dose at the time of the spontaneous lowering of temperature, in the first hours of night and very early in the morning. The condition of the heart must always be taken into account, for large doses might prove dangerous by paralyzing its motor apparatus. Simultaneous stimulation, especially with wine and camphor, is a useful aid to the antiseptic treatment, and prevents the toxic action of the alkaloid. 7. One must be specially careful that the quinine contains at most only a trace of the inactive cinchonine. The importance of its purity in other respects need not be insisted on. *(Ibid.)*

THE THERAPEUTIC VALUE OF DIGITALIS IN ENTERIC TYPHUS.— Dr. Ernest Hankel observes that the value of digitalis in enteric typhus has already been established by Wunderlich and Thomas. The infusion was administered, but as soon as the frequency of the pulse fell the use of the remedy was immediately omitted. When large doses were given vomiting sometimes occurred after the first and last, but without disadvantage to the patient. Such large doses contained about thirty grains to the four ounces. The entire quantity of digitalis required to reduce the frequency of the pulse varied from about thirty to seventy grains, the period of the attack having apparently no influence. Numerous and careful observations made upon eighty cases, of which forty-five recovered, enabled the author to draw the following conclusions: 1. The action of digitalis in sufficient doses causes a reduction of the duration of the fever amounting to several days, and a diminution of the frequency of the pulse extending over several weeks. Its exhibition is consequently indicated in cases where the evening temperature attains the height of one hundred and five degrees Fahr., and when there is only a slight remission in the morning, as well as in cases in which the contractions of the heart amount to one hundred and twenty in the minute, and the patient is in the second week of the fever. 2. Digitalis diminishes delirium; in this respect having a more powerful influence than large doses of quinine, or than cold baths or wrappings. We possess also, however, in morphia an agent that exercises a powerful influence in suppressing delirium if given in sufficient doses to procure sleep, though the delirium often reäppears in the morning, or at least an equal dose of the drug is required on the following evening. The objection to morphia lies in its disagreeable after and secondary effects. 3. The gravity of a case of typhus is determined not only by the height of the temperature, but also especially by the frequency and quality of the pulse. In reference to the latter point it is indubitable that the pulse, especially when very small, undergoes persistent augmentation in volume by the application of digitalis, and is hence to be employed when the pulse is small and feeble. 4. The employment of digitalis is not contraïndicated in consequence of the presence of albuminuria. 5. Two kinds of collapse are distinguishable in typhus — collapse with lowered temperature and diminished frequency of the pulse, and collapse with augmented temperature and frequency of the pulse. The first generally furnishes a good prognosis, especially when the depression has been occasioned by digitalis; the pulse, however, should be very carefully attended to. 6. The disposition to hemorrhage is not increased by the use of digitalis, so that if hemorrhage occur it is not contraïndicated. 7. The catarrh of the intestinal canal is indeed temporarily increased by this drug, but by no means forms a contraïndication to it. 8. Lastly, digitalis appears to prolong the duration of the disease, and hence it should only be prescribed when either the febrile symptoms, the frequency or smallness of the pulse, or the cerebral symptoms constitute threatening symptoms. *(Ibid.—Archiv der Heilkunde.)*

DISLOCATIONS OF THE WRIST.—To the question, which is so often raised, Do we meet with dislocation of the wrist in practice? Holmes Coote, Esq., says:

"The correct reply is, almost without exception, that under that head have been described instances of fracture, impacted or otherwise, of the lower extremity of the radius. In the museum of the hospital (Series III., No. 78) we have the radius of a young man which had been broken three quarters of an inch above its carpal articular surface. The posterior or dorsal margin of the upper fragment is driven into the cancellous tissue of the lower one. Their palmar margins are in contact, but a projecting angle is here formed at the line of fracture. In another specimen the projecting angle is on the dorsal aspect (No. 89). In other cases (Nos. 94, 95) the line of fracture is just above the epiphysis. But in speaking of the 'wrist' let us inquire what is meant by the term. If we refer to the movements of the hand we must include at least six articulations: 1. The rotation joint, or that between the radius, ulna, and interarticular fibro-cartilage. 2. The flexion joint, or that which allows the hand to drop toward its palmar aspect—namely, between the radius and interarticular fibro-cartilage on one side, and the scaphoid, semilunar, and cuneiform bones on the other. 3. The extension joint, or that which allows the front of the hand to be raised toward the dorsal aspect—namely, between the scaphoid, semilunar, and cuneiform bones on the one side, and the trapezium, trapezoid, and magnum and cuneiform on the other. 4. That between the pisiform and cuneiform bones, which favors palmar and volar flexion. 5. The carpo-metacarpal joints, in which the movement is very limited. 6. The trapezio-metacarpal joint, which gives to the thumb the freedom of action of a ball-and-socket joint, and enables it to be brought into every degree of opposition. The arching of the hand downward is a combined movement of all the joints, including that at the bones of the forearm.

"That dislocations are uncommon is due to the fact that the bones are small and numerous, the ligaments and surrounding tendons are strong, and it is not easy to apply such a degree and direction of forces as will cause such an accident in preference to fracture. When dislocations do occur, they are mostly combined with laceration of the soft parts, being caused by severe machinery or gunshot accidents. The displacement of the bones then becomes of secondary consideration. In combination with such severe injuries the following dislocations have been observed: 1. Dislocation of the radius forward or backward, the ulna remaining attached to the carpus; 2. Dislocation of the ulna forward, backward, or inward, the radius remaining attached to the carpus; 3. The tearing away of the carpal bones from the forearm; 4. Dislocation of the first and second row of carpal bones; 5. The scaphoid, pisiform, magnum, and trapezium have been dislocated separately; 6. Dislocations of the thumb are well known: it may be thrown backward, forward, or toward the index-finger. In speaking then of dislocation of the wrist, we must take into consideration the whole set of articulations. Such accidents are very uncommon, except as associated with severe compound fracture and laceration." (Lancet.)

TREATMENT OF GANGLIONS.—Mr. Skey says: "Bending the hand forward in order to tighten the skin over the cyst, pass vertically into the center of the tumor a broad-shouldered lancet. By a lateral movement of the instrument the orifice will be dilated, and the contents will freely escape. Now it is indispensable to the obliteration of the cyst that the whole of its contents should be evacuated, every drop and every fraction of a drop; to effect which the sac must be compressed and kneaded in every direction. Then apply a well-made thick compress of lint, and strap it down tightly with good plaster, and lastly a roller may be applied. In forty-eight hours the wound has healed and the ganglion is seen no more." *(Ibid.)*

TREATMENT OF BURNS.—Mr. Skey recommends the application of a solution of nitrate of silver in a proportionate strength, varying from five to twelve or more grains to the ounce, according to the extent and severity of the burn and the age of the patient. The whole surface of the burn should be brushed over with the solution, cotton-wool applied, and a moderate opiate administered in a glass of brandy and water, proportioned to the age and habits of the patient, with the object of counteracting the sense of chilliness that will otherwise necessarily follow in all these cases. *(Ibid.)*

Notes and Queries.

VARICOCELE.—Dr. W. T. Humphreys, Louisville, writes: "I am glad to report the success of the suspensory bandage devised by Mr. Morgan, of Dublin, a cut of which is contained in the American Practitioner for April. I have used it in two cases of varicocele, both of them troublesome cases, having previously used all kinds of appliances without relief. It is now more than a month, and the subjects in the mean time have not only suffered no pain nor inconvenience in wearing the bandage, but have been greatly comforted by it. The patients have learned to apply it themselves in half a minute, and say they have derived so much relief that they are willing, if necessary, to wear it the balance of their lives. I beg to suggest a slight modification, but I think a decided improvement, as regards the lead wire of the bandage. In Mr. Morgan's bandage the ends of the wire simply meet; I have found that by lengthening the wire so that the ends may lap somewhat that the scrotum is prevented from insinuating itself between the ends of the wire and becoming pinched; I think, further, that this gives better support to the testicle. I have examined the cases frequently, and from all appearances they give great encouragement that the suspensory will not only give temporary relief, but in the course of a few months effect a radical cure."

IPECAC IN DYSENTERY.—Our valued correspondent, J. S. Davis, M. D., Iuka, Miss., writes: "I was much interested in the report of the proceedings of the College of Physicians of Louisville in the November number of the American Practitioner, and especially where the ipecac treatment was recommended. One would infer, however, from your own remarks that Dr. Reynolds was the author of this practice. I have not seen Reynolds's System of Medicine, nor do I know the date of its publication, but as far back as 1847 Dr. Samuel Cartwright, of Natchez, Miss., advised the same treatment for dysentery, under the name of the 'one-dose cure for camp dysentery.' (*Vide* New Orleans Medical and Surgical Journal, January, 1847, p. 441.) From the great repugnance most patients have to the medicine, it is seldom that I have been able to get them to use it according to directions, but from the experience I have had with it I regard it as a good remedy."

[In the remarks to which Dr. Davis refers I certainly did not intend to say that Reynolds was the first or only author who recommended ipecac in dysentery. Many years ago ipecac had been given by Dr. Powell and other physicians in this city for dysentery, but as a remedy in that affection it had not acquired a hold on the professional mind, and for more than twenty years had seldom if ever been used here in the disease. I had previously observed that both Tanner and Aitken spoke in high terms of ipecac in dysentery, but until I read Dr. Maclean's contribution on the subject in Reynolds's System of Medicine I was never sufficiently impressed with the value of the remedy to use it in practice.—D. W. Y.]

Strychninism produced by one sixteenth of a Grain of Sulphate of Strychnia.—About the first of September I ordered for Mr. L., laboring under dyspepsia, the following, to be taken in dessert-spoonful doses before meals:

℞.—Liquid Pepsin, f℥iv; Quiniæ Sulph., ʒss; Strychniæ Sulph., gr. j. M. Fiat solutio.

A single dose, taken just before dinner, produced irregular jerking movements of the extremities, with dizziness and a sense of faucial constriction, all of which alarmed the patient and lasted until evening.

E. R. P.

INFLUENCE OF QUININE UPON THE GRAVID UTERUS.—Dr. J. S. May, of Clark's Prairie, Davis County, Ind., writes that, living in a region where malarial disorders prevail, he has had frequent occasions in his practice to administer quinine to pregnant women, and that he believes it to have no specific influence either in inducing or in accelerating labor ; and moreover that in the cases of labor where quinine seemed to accelerate the process it simply acted as a general "stimulant," and "any other stimulant" would have had the same effect. Further, he gives two cases, in one of which quinine seemed to arrest threatened labor, while in the other it failed to induce it at full time. In the first the patient was in the seventh month of her fourth pregnancy when attacked with intermittent fever ; pains every five minutes ; os dilated. Quinine, at first in combination with a small quantity of Dover's powder, and then by itself, arrested the pains, cured the intermittent, and the patient went on to full term, when she was delivered of a healthy child. In the second case patient at full term of third pregnancy ; os slightly dilated ; pains frequent. At first she complained of coldness, but after becoming warm the pains were harder for a while, then ceased. Gave twelve grains of quinine, in three doses, in one hour and a half, and in two hours she was quite comfortable ; labor pains did not recur within thirty-six hours.

A CASE OF TRISMUS NASCENTIUM WHICH RECOVERED UNDER CALOMEL ALONE.—The following comes from Dr. Hale, of Owensboro, Ky.: Mrs. —— lost a child two years ago with trismus. Her present infant—a girl—was well developed, and seemed hearty for two days after birth, when it had spells of restlessness and screaming, and throwing its legs and arms about ; between these seizures it would sleep. The mother, believing that nothing could be done for it, did not apply for advice until the patient was six days old. I found the infant with irregular jerkings of the legs, arms, and muscles of the face, occurring about every half hour. Opisthotonus was occasionally well marked. The jaws were fixed, and had been for the preceding twenty-four hours. During this time, being wholly unable to take the breast, milk was offered by spoon, but every attempt at deglutition was accompanied by spasms of considerable violence. The child was constipated. Having uniformly failed in previous cases of this affection to effect a cure by opiates, antispasmodics, etc., I determined to try in the present case calomel in full doses, and alone. I therefore ordered two grains of calomel to be given every two hours until the bowels were freely moved, and then continued at intervals of eight hours. At my visit next morning I was surprised to find the child nursing heartily. The calomel had operated twice copiously, bringing away large greenish stools, after which the spasms diminished in violence and frequency, and finally ceased altogether. I repeated the calomel at intervals of eight hours during the succeeding twenty-four hours, at the end of which time, the child seeming entirely well, treatment was discontinued. It is possible, I know, that this was not a case of genuine trismus nascentium, but rather one of those instances not unfrequently observed of convulsions from reflex irritation. Yet it certainly presented all the leading and essential features of the disease in its genuine form.

[We insert the following with pleasure.—EDS. AM. PRAC.]

A CARD FROM THE LONG ISLAND COLLEGE HOSPITAL.—It has recently come to our knowledge that a *quack advertisement* has been distributed under cover and stamp of the Annual Circular of the Long Island College Hospital.

The regents and faculty of the college embrace the earliest opportunity to state that this was done without our knowledge, after the circulars had been committed to the news-agent for distribution.

They deeply regret the necessity for publishing this card. But duty to themselves and the profession requires that this statement be made public.